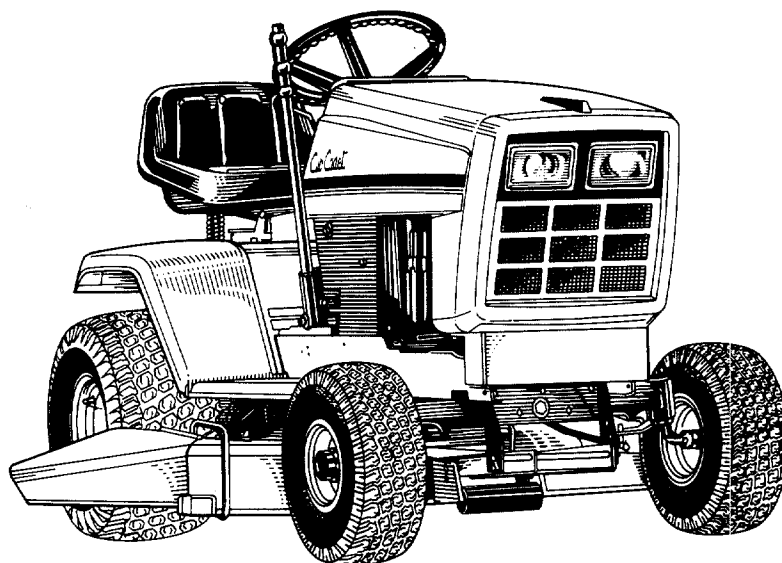




Owner's Manual

LAWN TRACTORS



Model Numbers

1325

1330

Important:

Read Safety Rules and Instructions Carefully

Thank you for purchasing an American-built product

CUB CADET CORPORATION • P.O. BOX 360930 • CLEVELAND, OHIO 44136

PRINTED IN U.S.A.

FORM NO. 772-4129



LIMITED WARRANTY

Proper maintenance of your Cub Cadet equipment is the owner's responsibility. Follow the instructions in your owner's manual for correct lubricants and maintenance schedule. Your Cub Cadet dealer carries a complete line of quality lubricants and filters for your equipments engine, transmission, chassis and attachments.

RIDING MOWERS, LAWN TRACTORS, GARDEN TRACTORS, CUB CADET ATTACHMENTS AND HOME MAINTENANCE PRODUCTS.

FIRST YEAR

This limited warranty for residential and commercial users, covers any defect in material or workmanship in your Cub Cadet equipment for one year from the date of purchase for the first user purchaser.

Batteries have a one year prorated limited warranty with 100% replacement during the first three months.

We will replace or repair any part or parts without charge through your authorized Cub Cadet dealer.

SECOND YEAR

This limited warranty, for residential users only, covers any defects in material or workmanship in the drive train for two years from the date of purchase for the first user purchaser.

The drive train consists of the engine, engine cradle, drive shaft, drive shaft clutch, all parts enclosed by the transmission housing, rear axle housing, brakes and electric power take off (if so equipped). V-belts used for either the traction drive or any attachments are covered for one year only.

ITEMS NOT COVERED

The warranty does not cover routine maintenance items such as lubricants, filters (oil, fuel, air and hydraulic), cleaning, tuneups, brake and/or clutch inspection, adjustments made as part of normal maintenance, blade sharpening, set-up, abuse, accidents and normal wear. It does not cover incidental costs such as transporting your equipment to and from the dealer, telephone charges or renting a product temporarily to replace a warranted product.

There is no other express warranty.

HOW TO OBTAIN SERVICE

Contact your authorized Cub Cadet servicing dealer who sold you your Cub Cadet equipment. If this dealer is not available see the Consumer Yellow Pages under "lawn mowers" for the name of a dealer near you.

If you need further assistance in finding an authorized Cub Cadet servicing dealer, contact:

Cub Cadet Corporation
Post Office Box 360930
Cleveland, Ohio 44136
Attn: Customer Service

HOW DOES STATE LAW APPLY?

This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state.


CONTENTS

Section	Page	Section	Page	
	Warranty	2	VII Mowing	35
	Safe Operation Practices	3	Optional Equipment	
	To The Owner	7	and Accessories	36
	Serial No. Location	7	Maintenance Chart	37
I	Controls	8	Trouble Shooting	38
II	Operation	11	Lubrication Table	40
III	Adjustments	15	Lubrication Guide	40
IV	Maintenance	21	Specifications	43
V	Off-Season Storage	26	Slope Gauge	45
VI	Mower Deck	27	Maintenance Parts Chart	47

IMPORTANT

SAFE OPERATION PRACTICES



THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH, IF NOT FOLLOWED, COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OF YOURSELF AND OTHERS. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO OPERATE YOUR UNIT. FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY. WHEN YOU SEE THIS SYMBOL –  **HEED ITS WARNING.**



DANGER:

This cutting machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.

I. GENERAL OPERATION

1. Read, understand and follow all instructions in the manual and on the machine before starting. Keep this manual in a safe place for future reference and for ordering replacement parts.
2. Only allow responsible adults familiar with the instructions to operate the machine. Know controls and how to stop the machine quickly.
3. Do not put hands or feet under cutting deck or near rotating parts.
4. Clear the area of objects such as rocks, toys, wire, etc. which could be picked up and thrown by the blade. A small object may have been overlooked and could be accidentally thrown by the mower in any direction and cause injury to you or a bystander. Always wear safety glasses or eye shields during operation or while performing an adjustment or repair, to protect eyes from foreign objects. Stop the blade(s) when crossing gravel drives, walks or roads.
5. Be sure the area is clear of other people before mowing. Stop machine if anyone enters the area.
6. Never carry passengers.
7. Disengage blade(s) before shifting into reverse and backing up. Always look down and behind before and while backing.
8. Be aware of the mower and attachment discharge direction and do not point it at anyone. Do not operate the mower without either the entire grass catcher or the chute guard in place.
9. Slow down before turning. Operate the tractor smoothly. Avoid erratic operation and excessive speed.
10. Never leave a running machine unattended. Always turn off blade(s), place transmission in neutral, set park brake, stop engine and remove key before dismounting.
11. Turn off blade(s) when not mowing.
12. Stop engine and wait until blade(s) comes to a complete stop before (a) removing grass catcher or unclogging chute, or (b) making any repairs, adjusting or removing any grass or debris.
13. Mow only in daylight or good artificial light.

14. Do not operate the machine while under the influence of alcohol or drugs.
15. Watch for traffic when operating near or crossing roadways.
16. Use extra care when loading or unloading the machine into a trailer or truck. This unit should not be driven up or down a ramp onto a trailer or truck under power, because the unit could tip over, causing serious personal injury. The unit must be pushed manually to load or unload properly.
17. Never make a cutting height adjustment while engine is running if operator must dismount to do so.
18. Wear sturdy, rough-soled work shoes and close-fitting slacks and shirts. Do not wear loose fitting clothes or jewelry. They can be caught in moving parts. Never operate a unit in bare feet, sandals or sneakers.
19. Check overhead clearance carefully before driving under power lines, wires, bridges or low hanging tree branches, before entering or leaving buildings, or in any other situation where the operator may be struck or pulled from the unit, which could result in serious injury.
20. Disengage all attachment clutches, thoroughly depress the brake pedal and shift into neutral before attempting to start engine.

II. SLOPE OPERATION

Slopes are a major factor related to loss of control and tip-over accidents which can result in severe injury or death. **All slopes** require extra caution. If you cannot back up the slope or if you feel uneasy on it, do not mow it.

DO:

Mow up and down slopes, not across.

Remove obstacles such as rocks, limbs, etc.

Watch for holes, ruts or bumps. Uneven terrain could overturn the machine. **Tall grass can hide obstacles.**

Use slow speed. Choose a low enough gear so that you will not have to stop or shift while on the slope. Always keep tractor in gear when going down slopes to take advantage of engine braking action.

Follow the manufacturer's recommendations for wheel weights or counterweights to improve stability.

Use extra care with grass catchers or other attachments. These can change the stability of the machine.

Keep all movement on the slopes **slow and gradual**. Do not make sudden changes in speed or direction. Rapid engagement or braking could cause the front of the machine to lift and rapidly flip over backwards which could cause serious injury.

Avoid starting or stopping on a slope. If tires lose traction, disengage the blade(s) and proceed slowly **straight** down the slope.

For your safety, use the slope gauge included as part of this manual to measure slopes before operating this unit on a sloped or hilly area. If the slope is greater than 15° as shown on the slope gauge, do not operate this unit on that area or serious injury could result.

DO NOT:

Do not turn on slopes unless necessary: then, turn slowly and gradually downhill, if possible.

Do not mow near drop-offs, ditches or embankments. A wheel over the edge or an edge caving in could cause sudden overturn.

Do not mow on wet grass. Reduced traction could cause sliding.

Do not try to stabilize the machine by putting your foot on the ground.

Do not use grass catcher on steep slopes.

III. CHILDREN

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. **Never** assume that children will remain where you last saw them.

1. Keep children out of the mowing area and in watchful care of an adult other than the operator.
2. Be alert and turn machine off if children enter the area.
3. Before and when backing, look behind and down for small children.
4. Never carry children. They may fall off and be seriously injured or interfere with the safe machine operation.
5. Never allow children under 14 years old to operate the machine. Children 14 years and over should only operate machine under close parental supervision and proper instruction.
6. Use extra care when approaching blind corners, shrubs, trees or other objects that may obscure vision.

IV. SERVICE

1. Use extra care in handling gasoline and other fuels. They are flammable and vapors are explosive.
 - A. Use only an approved container.
 - B. Never remove gas cap or add fuel with the engine running. Allow engine to cool at least two minutes before refueling. Do not smoke.
 - C. Never refuel the machine indoors.
 - D. Never store the machine or fuel container inside where there is an open flame, or spark, such as a water heater, space heater, clothes dryer and the like.
2. Never run a machine inside a closed area.
3. Check frequently and keep nuts and bolts, especially blade attachment bolts, tight and keep equipment in safe working condition.
4. Never tamper with safety devices. Check their proper operation regularly. Use all guards as instructed in this manual.
5. To reduce fire hazard, keep machine free of grass, leaves or other debris build-up. Clean up oil or fuel spillage. Allow machine to cool before storing.
6. Stop and inspect the equipment for damage if you strike an object. Repair, if necessary, before re-starting and operating the machine.
7. Never make adjustments or repairs with the engine running.
8. Grass catcher components are subject to wear, damage and deteriorate, which could expose moving parts or allow objects to be thrown. Frequently, check components and replace with manufacturer's recommended parts when necessary.
9. Mower blades are sharp and can cut. Wrap the blade(s) or wear gloves and use extra caution when servicing blade(s).
10. Check brake operation frequently. Adjust and service as required.
11. Muffler, engine and belt guards become hot during operation and can cause a burn. Allow to cool down before touching.
12. Do not change the engine governor settings or overspeed the engine.



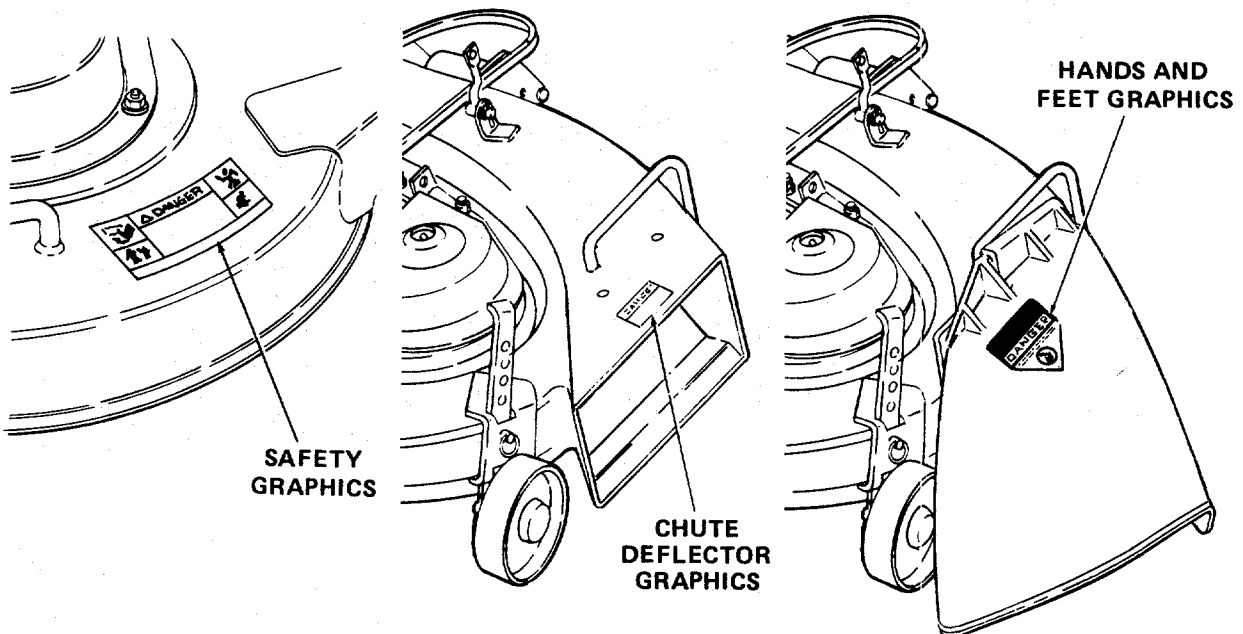
DANGER:

Your unit was built to be operated according to the rules for safe operation in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. If you violate any of these rules, you may cause serious injury to yourself or others.

PRODUCT GRAPHICS

Keep safety product graphics (decals) clean. Replace any safety graphic that is damaged, destroyed,

missing, painted over or can no longer be read. Replacement safety graphics are available through your dealer.



WARNING

AVOID SERIOUS INJURY OR DEATH

- GO UP AND DOWN SLOPES, NOT ACROSS • AVOID SUDDEN TURNS
- DO NOT OPERATE THE UNIT WHERE IT COULD SLIP OR TIP
- IF MACHINE STOPS GOING UPHILL, STOP BLADE(S) AND BACK DOWNHILL SLOWLY
- DO NOT MOW WHEN CHILDREN OR OTHERS ARE AROUND • NEVER CARRY CHILDREN
- LOOK DOWN AND BEHIND BEFORE AND WHILE BACKING
- KEEP SAFETY DEVICES (GUARDS, SHIELDS, AND SWITCHES) IN PLACE AND WORKING
- REMOVE OBJECTS THAT COULD BE THROWN BY THE BLADE(S)
- KNOW LOCATION AND FUNCTION OF ALL CONTROLS
- BE SURE BLADE(S) AND ENGINE ARE STOPPED BEFORE PLACING HANDS OR FEET NEAR BLADE(S)
- BEFORE LEAVING OPERATOR'S POSITION, DISENGAGE BLADE(S), PLACE THE SHIFT LEVER IN NEUTRAL, ENGAGE BRAKE LOCK, SHUT ENGINE OFF AND REMOVE KEY.

READ OPERATOR'S MANUAL

3437A1233 253 2731

**GENERAL SAFETY INSTRUCTIONS CAUTION -
LOCATED ON THE FRAME COVER
(1330 SHOWN)**

CAUTION

Electrical system is 12 volt negative ground. When using booster with jumper cables, precautions must be taken to prevent personal injury or damage to electrical parts.

1. Attach one end of jumper cable to positive terminal of booster battery and other end to positive terminal of vehicle battery.
2. Attach one end of second cable to negative terminal of booster battery and other end to vehicle frame away from battery.
3. To remove cables, reverse above sequence exactly to avoid sparks. See operator's manual for additional information.

MC

**CAUTION - BOOSTER BATTERY INSTRUCTIONS
LOCATED UNDER THE SEAT ASSEMBLY**

TO THE OWNER

Cub Cadet lawn tractors, Models 1325 and 1330, are shipped with 38-inch mower deck, Model 441. Contained in this manual are operation, lubrication, and maintenance instructions for this equipment. The material has been prepared in detail to help you better understand the correct care and efficient operation of your tractor. Before you operate the tractor, study this manual carefully. Additional copies may be ordered from your dealer at a nominal price.

Your local authorized dealer is interested in the performance you receive from your tractor. He has factory-trained servicemen, informed in the latest method of servicing tractors, modern tools, and original-equipment service parts which assure proper fit and good performance.



CAUTION

DO NOT tow your Model 1330 tractor. Towing or pushing for more than a few feet may damage the hydrostatic drive unit.

The *Cub Cadet* 1330 Tractor has a hydrostatic drive unit and will require minimum service if recommended operation and maintenance procedures are followed.

To obtain top performance and assure economical operation the tractor should be inspected, depending on its use, periodically, or at least once a year, by your authorized dealer.

When in need of parts, always specify the model, chassis, and engine serial numbers, including the prefix and suffix letters. Write these serial numbers in the space provided on this page.

Should you have difficulties with the unit, consult your authorized dealer. UNDER NO CIRCUMSTANCES SHOULD YOU ATTEMPT TO SERVICE THESE UNITS YOURSELF. Only your dealer is authorized to repair or replace units on this drive under the terms of the warranty. Should you desire additional information not found in this manual, contact your authorized *Cub Cadet* dealer.

SERIAL NUMBER LOCATION



NOTE

LEFT and RIGHT indicate the left and right sides of the tractor when facing forward in the driver's seat. Reference to FRONT indicates grille end of the tractor; to REAR the drawbar end.

Chassis serial number plate is on the left hand side of pedestal. (Refer to Figure 1.)

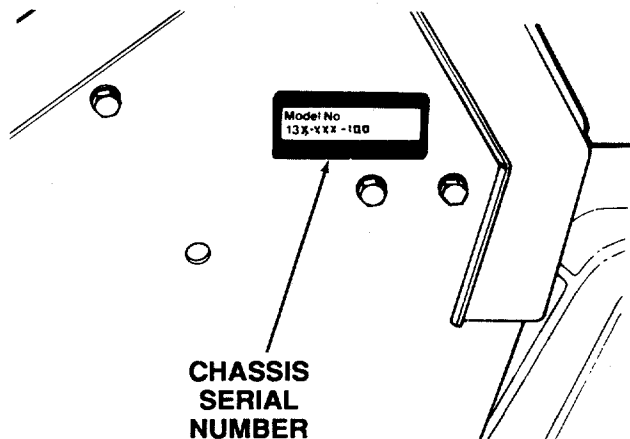


Figure 1

Engine serial number plate is located on the engine shroud. (Refer to Figure 2.)

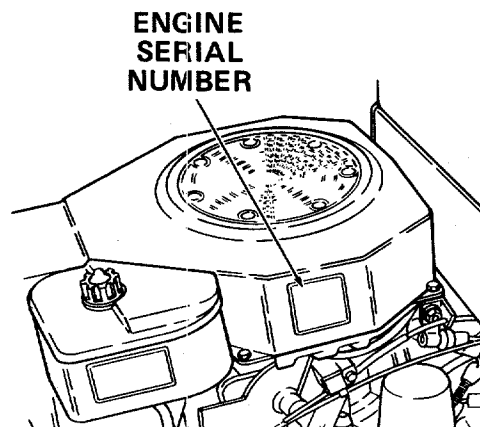


Figure 2

MODEL _____

DELIVERY DATE _____

SECTION I. CONTROLS

Your *Cub Cadet* Tractor has been safety engineered. Thoroughly acquaint yourself with all the instruments and controls before attempting to start or operate the tractor.

A. CHARGE INDICATOR

This instrument indicates whether the alternator is charging or the battery is discharging. If it shows discharge continuously, investigate the cause to avoid completely discharging the battery and possible damage to the charging circuit. (Refer to Figure 3.)

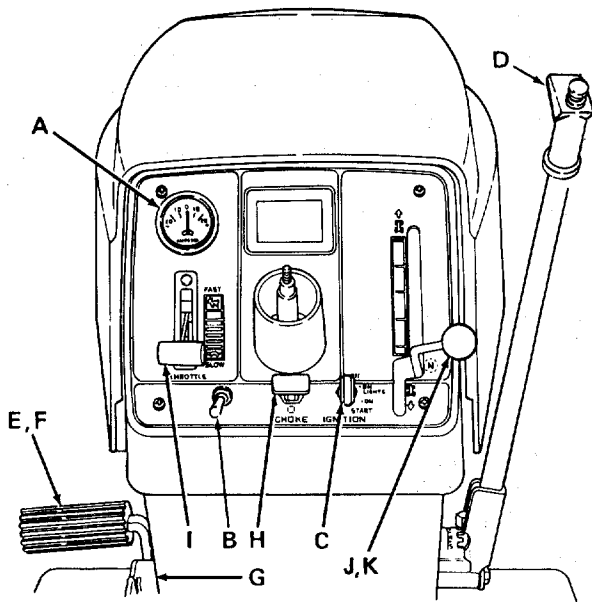


Figure 3

- A. Charge Indicator
- B. Power Take-Off (PTO)
- C. Ignition Switch/Light Switch
- D. Lift Handle
- E. Brake/Clutch Pedal (1325 Tractor)
- F. Brake Pedal (1330 Tractor)
- G. Brake Pedal Lock
- H. Choke Control
- I. Throttle Control Lever
- J. Gear Shift Lever (1325 Tractor)
- K. Speed Control Lever (1330 Tractor)

B. POWER TAKE-OFF (PTO)

The power take-off (PTO) is an electric clutch operated by a toggle switch on the left side of the instrument panel. When PTO is engaged, throttle should be in fast position. (Refer to Figure 3.)

C. IGNITION/LIGHT SWITCH



Remove the key from the tractor when the tractor is not in use to prevent accidental starting and battery discharge.

The combination lights and ignition switch is a four-position switch. (Refer to Figure 4.)

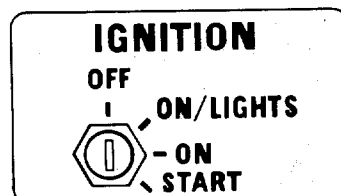


Figure 4

D. LIFT HANDLE

This lever is used to raise and lower equipment used with the tractor. The equipment can be set in six positions by depressing the button on the top of the lever and releasing it when the desired position is reached. (Refer to Figure 5.)



An optional gas spring assist kit is available through your authorized *Cub Cadet* dealer, order part number 759-3266.

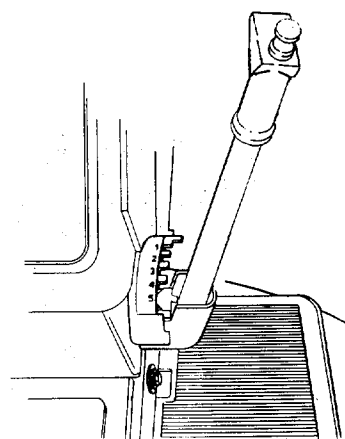


Figure 5

E. BRAKE/CLUTCH PEDAL (1325 Tractor)

The brake/clutch pedal is located on the left side of the tractor. This pedal serves a dual purpose. When the brake/clutch pedal is slightly depressed, the drive belt

is disengaged from the engine pulley. Fully depressing the brake/clutch pedal actuates the brakes to stop the tractor. (Refer to Figure 3.)

F. BRAKE PEDAL (1330 Tractor)



CAUTION

When the brake pedal is fully depressed the brake pedal lock will automatically engage. To disengage the brake pedal lock, press down on the pedal slightly, lift the brake pedal lock up and release the pedal.

The brake pedal is located on the left side of the tractor. When the pedal is fully depressed, the speed control lever is automatically moved to the neutral position if the linkage is properly adjusted. (Refer to Figure 3.)

G. BRAKE PEDAL LOCK



WARNING

The hydrostatic transmission will not hold the tractor on a hill. In a short period of time (depending on the steepness of the hill) the oil will drain from the transmission and allow the tractor to roll downhill. To avoid an accident and/or possible injury, lock the brake.

Always lock the brake when tractor is parked on a grade. To lock the brake, depress brake/clutch pedal (1325 tractor) or the brake pedal (1330 tractor) and place the brake pedal lock in the engaged position. (Refer to Figure 6.) To disengage the lock, press down on the pedal, lift the lock up and place it in the disengaged position.

H. CHOKE CONTROL

The choke control is located on the instrument panel directly below the steering column. The choke control is operated manually. Pull knob out to choke engine. Push knob in to open choke. (Refer to Figure 3.)

I. THROTTLE CONTROL LEVER

This lever controls the speed of the engine. When set in a given position, it will maintain a uniform engine speed. (Refer to Figure 3.)

When using power take-off operated equipment, best performance is achieved with the throttle lever in the "FAST" position.

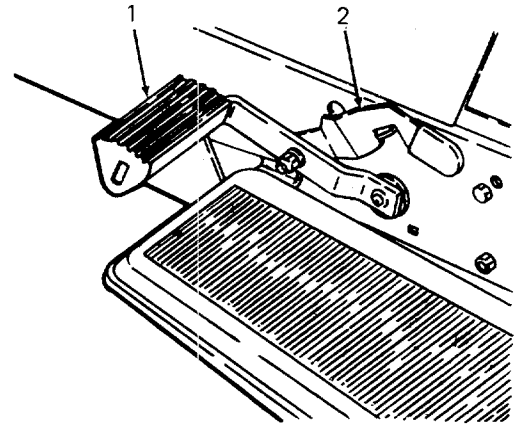


Figure 6

1. Brake/Clutch Pedal (1325 Tractor)
Brake Pedal (1330 Tractor)
2. Brake Pedal Lock



"Turtle" This symbol shows slow position.



"Rabbit" This symbol shows fast position.

J. GEAR SHIFT LEVER (1325 Tractor)



NOTE

Brake/clutch pedal should be slightly depressed before shift lever is moved.

The gear shift lever is located on the upper right hand side of the instrument panel. This lever is used to select various gear ratios provided in the transmission. There are five forward speeds and one reverse speed. Refer to "SPECIFICATIONS." (Refer to Figure 7.)

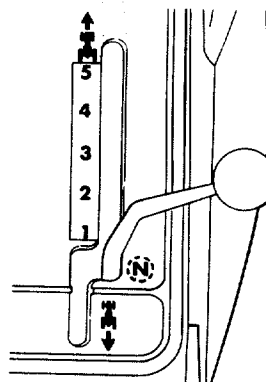


Figure 7

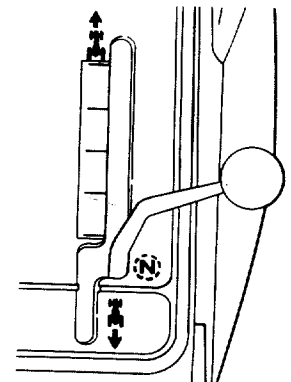


Figure 8

K. SPEED CONTROL LEVER (1330 Tractor)

The speed control lever is located on the upper right hand side of the instrument panel. Move the speed control lever forward for various forward tractor speeds or backward for various reverse tractor speeds. (Refer to Figure 8.)

L. INTERLOCKS

This tractor is equipped with a safety interlock system for the protection of the operator. If the interlock system should ever malfunction, do not operate the tractor. Contact your authorized *Cub Cadet* dealer.

The safety interlock system prevents the engine from cranking or starting unless the brake/clutch pedal (1325 tractor) or brake pedal (1330 tractor) is fully depressed, and the PTO switch is in the "OFF" position.

The safety interlock system will automatically shut off the engine if the operator leaves the seat before placing the gear shift lever (1325 tractor) or speed control level (1330 tractor) in neutral ("N") and engaging the brake pedal lock.

The safety interlock system will automatically disengage the PTO if the operator leaves the seat with the PTO on, or the unit is shifted into reverse with the PTO in the "RUN" position. To re-engage the PTO, shift into neutral ("N"), move the PTO switch into the "OFF" position and then engage the PTO while seated.

M. HYDROSTATIC DUMP VALVE LEVER (1330 Tractor)

The hydrostatic dump valve lever is located on the frame cover.

The dump valve disconnects the transmission from the pump so the unit can be pushed without running.

1. To engage the dump valve (making the tractor free-wheeling), push the lever forward and hold in this position. (Refer to Figure 9.)

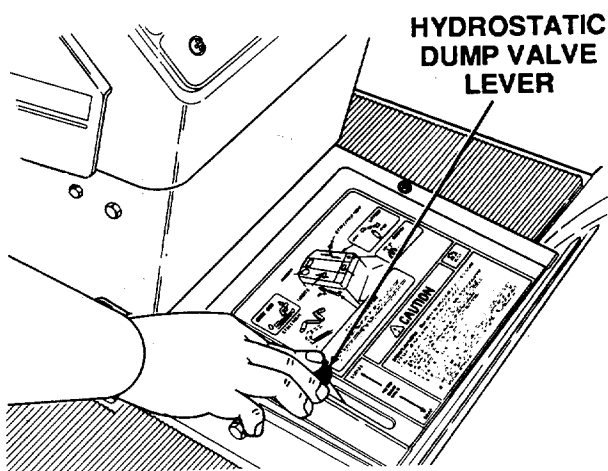


Figure 9

2. To disengage the dump valve, release the lever. (Refer to Figure 10.)

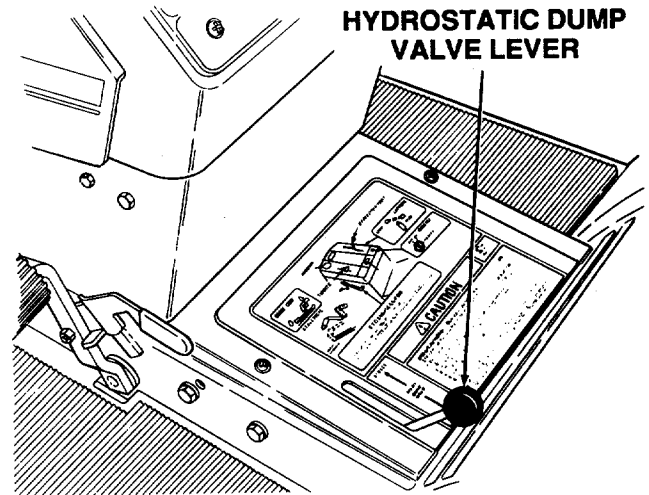


Figure 10

FUEL TANK

The fuel tank is on the pedestal under the hood. (Refer to Figure 11.)

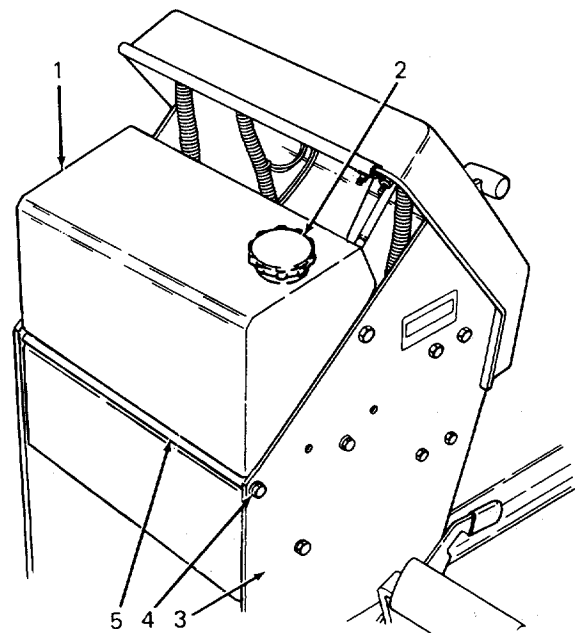


Figure 11

- | | |
|------------------|-------------------|
| 1. Fuel Tank | 4. Hex Tapp Screw |
| 2. Fuel Tank Cap | 5. Tube |
| 3. Pedestal | |

SECTION II. OPERATION

PRE-OPERATION CHECKLIST

1. Check oil level. The oil fill and dipstick are located on the right rear side of the engine. (Refer to Figure 12.)
2. Fill fuel tank with regular or unleaded gasoline.

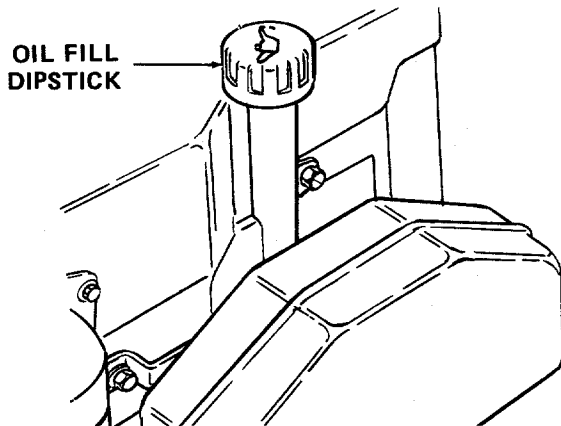


Figure 12

ENGINE OIL REQUIREMENTS

Cub Cadet Low Ash Engine Oil

Ambient Temperature	Viscosity (Grade SF or SG)
Above 32°F	SAE 10W30 or 10W40
Below 32°F	SAE 5W20 or 5W30

DO NOT USE Synthetic oil, non-detergent oil or other non-recommended oils.

DO NOT MIX different brands of oil.

OIL DIPSTICK CHECKS

Dipstick should be checked before starting the unit **EVERY TIME**.

Dipstick markings indicate upper and lower limits at a cold oil condition.

Never overfill engine oil.

BEFORE OPERATING YOUR TRACTOR

NOTE

The mower deck must be leveled according to "DECK LEVELING ADJUSTMENTS" located on page 27 of Section VI, MOWER DECK.



CAUTION

If the mower deck is not level, the mower will not cut your lawn evenly.

1. Before you operate the tractor study this manual carefully. It has been prepared to help you operate and maintain your tractor with utmost efficiency.
2. Familiarize yourself with the operation of all the instruments and controls.
3. Fill the tank with either lead-free, low-lead or regular gasoline. Make sure before you fill the tank that the gasoline is clean and fresh.
4. Check tire inflation pressures.
5. Adjust the seat for operator's maximum comfort, visibility and complete control of the tractor.
6. Refer to various sections of the Owner's Manual for additional information.

STARTING THE ENGINE



WARNING

Do not operate tractor if the interlock system is malfunctioning. It is a safety device designed for protection of the operator.



NOTE

This unit is equipped with a safety interlock system for your protection. The safety interlock system prevents the engine from cranking or starting unless the brake/clutch pedal (1325 tractor) or brake pedal (1330 tractor) is fully depressed, and the PTO engagement switch is in the "OFF" position. The safety interlock system will automatically shut off the engine if the operator leaves the seat before placing the gear shift lever (1325 tractor) or speed control lever (1330 tractor) in neutral ("N") and engaging the brake pedal lock. The safety interlock system will automatically disengage the PTO if the operator leaves the seat with the PTO on, or the unit is shifted into reverse with the PTO in the "RUN" position. To re-engage the PTO, shift into neutral ("N"), move the PTO lever into the "OFF" position, and then engage the PTO while seated.



WARNING

During operation do not run the engine in confined area such as storage building any longer than is necessary. Immediately move the tractor outside into the air.



WARNING

Operator must be seated before starting tractor.

1. Operator must be seated.
2. Pull choke control knob out to full choke position. Less choking may be necessary due to variations in temperature, grade of fuel, etc. Little or no choking will be needed when the engine is warm.
3. Place the throttle in the "START" (1/2-3/4 throttle) position. Never start engine at full throttle.
4. Place the PTO switch in the "OFF" position.
5. Place the gear shift lever (1325 tractor) or speed control lever (1330 tractor) in neutral ("N").
6. Depress the brake/clutch pedal (1325 tractor) or brake pedal (1330 tractor).



NOTE

On the 1330 model tractors, the speed control lever will automatically return to neutral when the brake pedal is pressed all the way down, and the linkage is properly adjusted.

7. Turn the ignition key clockwise to the "START" position and release it as soon as the engine starts: however, do not operate the starter for more than 10 seconds at any one time. If the engine does not start within this time, turn the key "OFF" and wait a few minutes, then try again.
8. After the engine starts, slowly release the brake/clutch pedal (1325 tractor) or brake pedal (1330 tractor) and gradually push the choke control knob all the way in. Do not use the choke to enrich the fuel mixture, except as necessary to start the engine.

STOPPING THE ENGINE



CAUTION

Remove the key to prevent accidental starting and battery discharge if equipment is left unattended.

1. Return gear shift lever (1325 tractor) or speed control lever (1330 tractor) to neutral ("N"), engage the brake pedal lock and return PTO switch to "OFF" position.
2. Move the throttle lever to the "SLOW" position and allow the engine to idle for a short time before stopping.
3. Then turn the key to the "OFF" position. Remove key from ignition switch.

COLD WEATHER STARTING



WARNING

During operation do not run the engine in confined area such as storage building any longer than is necessary. Immediately move the tractor outside into the air.



NOTE

In cold weather the starting motor may disengage prematurely. This is caused by the engine firing once but failing to continue running. If this happens several times, the engine will be flooded and it will be necessary to leave the throttle in the "SLOW" position but push the choke knob in all the way; then turn the ignition key to the "START" position and slowly pull the choke knob out to the position which will cause the engine to start and continue running. If the engine falters after putting tractor into motion, pull the choke knob out part way until the engine runs smoothly, then gradually push the choke back in as the engine warms.

Engine starting is possible in cold weather providing the correct weight of engine oil is used, the battery is fully charged, and the proper starting procedure is followed. The best procedure for starting at temperatures near or below freezing is as follows:



WARNING

Operator must be seated before starting tractor.

1. Operator must be seated.
2. Pull the choke knob all the way out to the full choke position.
3. Place the throttle in the "START" (1/2-3/4 throttle) position. Never start engine at full throttle.

- Place the gear shift lever (1325 tractor) or speed control lever (1330 tractor) in neutral ("N"), depress the brake/clutch pedal (1325 tractor) or brake pedal (1330 tractor) and place the PTO switch in the "OFF" position.
- Move the key switch into the "START" position and hold until the engine starts; however, do not operate the starter for more than 10 seconds at any one time. As soon as the engine starts, slowly push the choke knob in part way.

DRIVING THE TRACTOR (1325 Tractor)



CAUTION

DO NOT shift gears while the tractor is moving. The brake/clutch pedal must be pushed slightly down in order to change gears.



CAUTION

Do not leave the seat of the tractor without depressing the brake/clutch pedal and engaging the brake pedal lock. If leaving the tractor unattended, also turn the ignition key off and remove the key.



CAUTION

Avoid sudden starts, excessive speed and sudden stops. Keep vehicle in gear when going down hills.



CAUTION

Do not rest your foot on the brake/clutch pedal while driving the tractor. This will lead to premature and excessive wear of the belt.



NOTE

When using power take-off (PTO) operated attachments, best performance is achieved with the throttle lever in the "FAST" position.

- Disengage the drive belt by pressing the brake/clutch pedal all the way down, and release

the brake pedal lock. Move the gearshift lever to the desired speed.

- Start the tractor in motion by slowly releasing the brake/clutch pedal and moving the throttle lever to the position where the engine operates best for the load to be handled. If smooth engagement cannot be obtained, an adjustment to the clutch rod may be required.

DRIVING THE TRACTOR (1330 Tractor)



CAUTION

Avoid sudden starts, excessive speed, and sudden stops. Keep tractor in gear when going down hills.



CAUTION

Do not leave the seat of the tractor without depressing the brake pedal and engaging the brake pedal lock. If leaving the tractor unattended, also turn the ignition key off and remove the key.



NOTE

When using power take-off (PTO) operated attachments, best performance is achieved with the throttle lever in the "FAST" position.

- Depress the brake pedal and release the brake pedal lock. Move the throttle lever to the position where the engine operates best for the load to be handled. Release the brake pedal.
- Start the tractor in motion by moving the speed control lever slowly forward or rearward to desired speed.

DRIVING ON SLOPES (Refer to "SLOPE GAUGE" on page 45 in order to help determine slopes where you may not operate safely.)



WARNING

Do not mow on inclines with a slope in excess of 15 degrees (a rise of approximately 2-1/2 feet every 10 feet). A tractor could overturn and cause serious injury.



WARNING

Operate tractors up and down slopes, never across slopes.



CAUTION

Always drive up or down the face of a slope. Do not drive so that the tractor may tip over sideways.

Before operating the tractor on any slope, walk the slope to look for possible hazards such as rocks, mounds, ruts, stumps or other surface irregularities which could cause an upset.

Back the tractor with implement up the steepest portion of each slope you intend to work. If the tractor cannot negotiate the slope in reverse, the slope is too steep to be worked.

Avoid turns when driving on a slope. If a turn must be made, turn down the slope. Turning up a slope greatly increases the chance of a roll over.

Avoid stopping when driving up a slope. If it is necessary to stop while driving up a slope, start up smoothly and carefully to reduce the possibility of flipping the tractor over backward.

STOPPING THE TRACTOR (1325 Tractor Only)



CAUTION

Always engage brake pedal lock, lower equipment and shut off engine before dismounting.

Fully depress the brake/clutch pedal. When tractor has stopped, raise brake/clutch pedal slightly and place gear shift lever in neutral ("N").

STOPPING THE TRACTOR (1330 Tractor Only)



CAUTION

Always engage brake pedal lock, lower equipment and shut off engine before dismounting.

Fully depress the brake pedal. When tractor has stopped, place the speed control lever in neutral ("N").



NOTE

On the 1330 model tractors, the speed control lever will automatically return to neutral when the brake pedal is pressed all the way down, and the linkage is properly adjusted.

Before dismounting, always engage the brake pedal lock, place the PTO switch in the "OFF" position, and turn the ignition "OFF."

OPERATING THE FRONT POWER TAKE-OFF CLUTCH (PTO) (Refer to Figure 13.)

1. Move the throttle lever back to the medium or "SLOW" position.
2. Place the speed control lever in neutral ("N").
3. Move PTO switch to "OFF" (A) position. Pull knob out and lift up to "START" (B) position and release.
4. Advance throttle to operating speed (full speed).
5. The operator must remain in tractor seat at all times. If operator should leave tractor seat without turning off the power take-off switch, the PTO will disengage.
6. PTO switch must be in the "OFF" (A) position when shifting the tractor into reverse or the PTO will disengage automatically. To re-engage the PTO, shift unit into neutral. Move PTO switch to "OFF" (A) position. Then pull knob out and lift up to "START" (B) position and release.

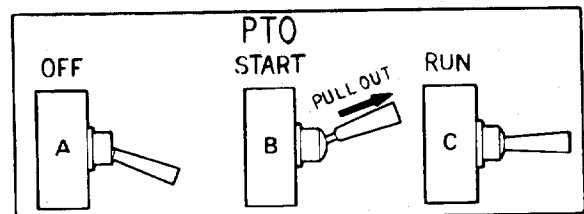


Figure 13

SECTION III. ADJUSTMENTS

This section contains adjustment information for Models 1325 and 1330 tractors. Adjustment information for the 38-inch mower deck is located on page 27 of Section VI, Mower Deck.

ADJUSTING THE SEAT

Before starting the tractor, adjust the seat to the most comfortable driving position. Tilt the seat forward over the steering wheel, loosen the four adjustment bolts in the seat support, and slide the seat assembly forward or rearward to the position which is most comfortable for the operator. (Refer to Figure 14.)

Retighten the adjustment bolts after the seat is adjusted.

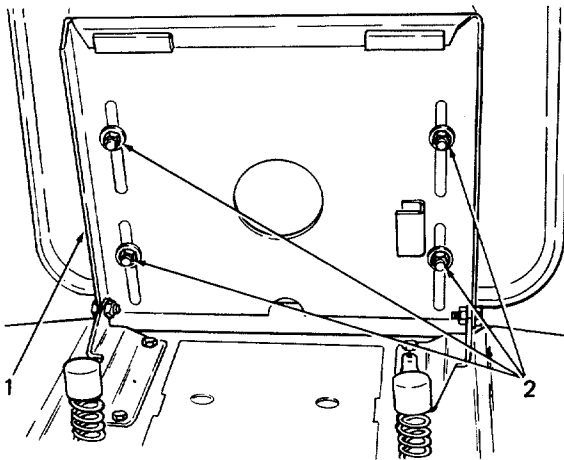


Figure 14

1. Seat Support
2. Adjustment Bolt

FRAME COVER REMOVAL

1. Remove two screws holding frame cover to frame in the step through area. (Refer to Figure 15.)
2. Remove ball knob from end of dump valve (on 1330 tractor only).
3. Lift up and slide frame cover rearward from underneath the pedestal.
4. Reassemble frame cover using two screws.

ADJUSTING THE POWER TAKE-OFF CLUTCH



WARNING

To avoid possible injury, always disengage all clutches, move speed control lever into neutral, depress the brake, set the brake pedal lock and turn the ignition "OFF" before working on the machine.

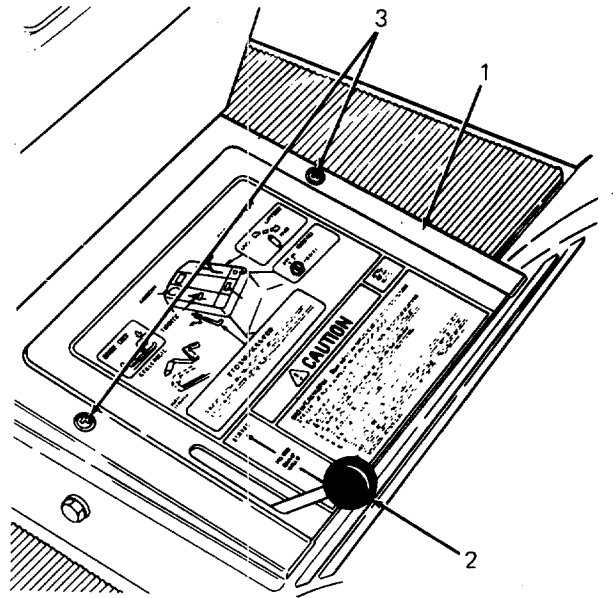


Figure 15

1. Access Slots
2. Brake Plate
3. Self-Locking Nuts

The clutch is factory adjusted and should not require further adjustment under normal operating conditions. However, if the clutch fails to operate properly, check as follows:

Using a feeler gauge, check the air gap. (Refer to Figure 16). Insert feel gauge into one of three access slots located around the outside of the brake plate.

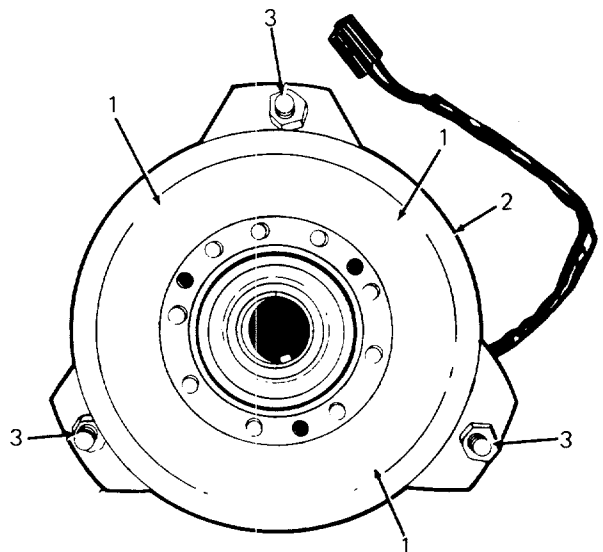


Figure 16

1. Access Slots
2. Brake Plate
3. Self-Locking Nuts

The air gap should be .010 to .015 inch. Adjust the self-locking nuts to obtain the proper clearance. Repeat the operation in all three access slots.

NOTE

If brake plate drags on clutch at .010 to .015 inch air gap, increase air gap to .020 inch. After two hours of use, recheck and set back to .010 to .015 inch.

If the above procedure does not work, see your authorized dealer.

CLUTCH ROD ADJUSTMENT (1325 Tractor)

Clutch rod adjustment is necessary when belt slippage occurs, or when brake/clutch pedal bottoms out on the running board and does not return to the up position. If adjustment is needed, contact your authorized dealer.

ADJUSTING THE BRAKES (1325 Tractor)

During normal operation on this machine, the brakes are subject to wear and will require periodic examination and adjustment.

To check brake adjustment, position the tractor on a level surface, place the gear shift lever in neutral ("N") position and perform the following checks:

1. Engage the brake pedal lock. If the unit can be pushed forward or rearward, the brake force must be increased.
2. Release the brake pedal lock. If the unit cannot be pushed forward or rearward, brake force must be decreased.

Refer to the following instructions to increase or decrease brake force.

To increase brake force, refer to Figure 17 and proceed as follows:

1. Place the tractor on a level surface, with the brake pedal lock disengaged.
2. Tighten the top lock nut 1/4 turn at a time until tractor free movement begins to bind. Then back off the top lock nut 1/4 turn.

NOTE

If the previously described brake adjustment does not result in efficient brake operation, proceed to step number 3.

3. Refer to Figure 18 and tighten the hex nut on the end of the brake rod, under the spring as follows: remove the hairpin cotter and flat washer from the other end of the brake rod to disconnect it, and tighten the hex nut.

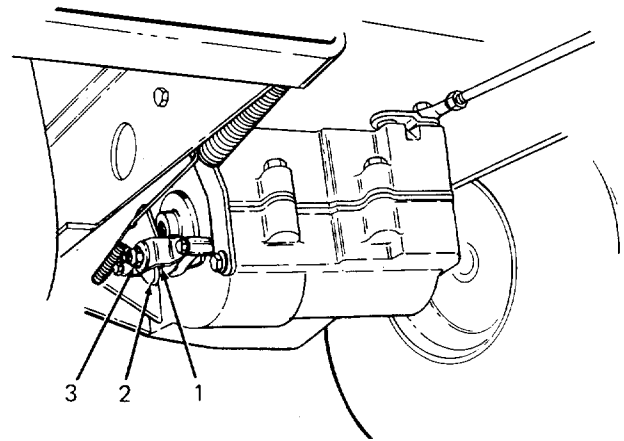


Figure 17

- | | |
|--------------|-----------------|
| 1. Stop Bolt | 3. Top Lock Nut |
| 2. Cam Lever | |

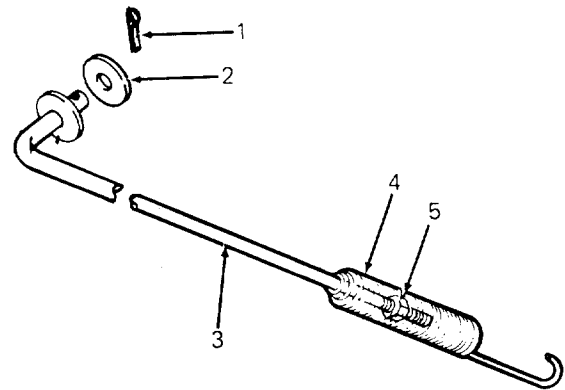


Figure 18

- | | |
|-------------------|------------|
| 1. Hairpin Cotter | 4. Spring |
| 2. Flat Washer | 5. Hex Nut |
| 3. Brake Rod | |

4. Reconnect the brake rod and secure it with flat washer and hairpin cotter.

Recheck the adjustment making certain correct adjustment is reached before operating the tractor.

To decrease brake force, refer to Figure 18 and proceed as follows:

1. Loosen the hex nut on the end of the brake rod under the spring as follows: remove the hairpin cotter and flat washer from the other end of the brake rod to disconnect it, and loosen the hex nut.

NOTE

At least 3 threads on the end of the brake rod must remain visible following this adjustment.

2. Reconnect the brake rod and secure it with flat washer and hairpin cotter.

Recheck the adjustment making certain correct adjustment is reached before operating the tractor. If the tractor still cannot be pushed following this adjustment, and with the brake pedal lock released, see your authorized *Cub Cadet* Dealer.

ADJUSTING THE BRAKES (1330 Tractor)

During normal operation of this tractor, the brakes are subject to wear and will need periodic examination and adjustment.

To check the brake adjustment, place tractor on a level surface, and engage the hydrostatic dump valve so unit can be pushed. Perform the following checks:

1. Engage the brake pedal lock [when the brake pedal is fully depressed, and the linkage is properly adjusted, the speed control lever will automatically move to the neutral ("N") position]. If the unit can be moved forward or rearward, the brake force must be increased.
2. Release the brake pedal lock. If the unit cannot be moved forward or rearward, the brake force must be decreased.

Refer to the following instructions to increase or decrease brake force.

To increase the brake force, refer to Figure 19 and proceed as follows:

1. Place the tractor on a level surface, with the brake pedal lock disengaged.
2. While working from the rear of the tractor, turn the nut located on the end of the brake rod, clockwise one full turn at a time, until correct adjustment is achieved.

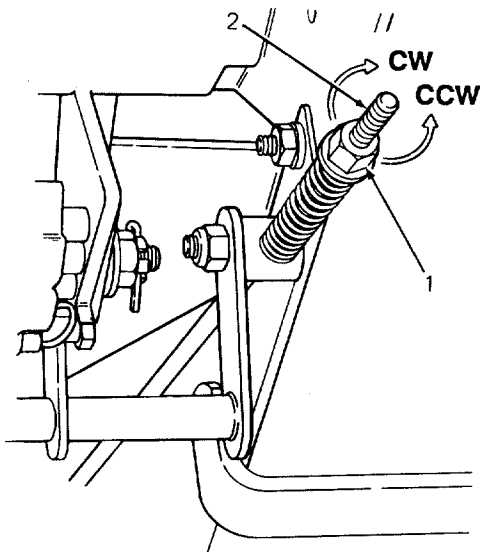


Figure 19

1. Nut

2. Brake Rod

Recheck the adjustment making certain correct adjustment is reached before operating the tractor. If the tractor can still be pushed with the brake pedal locked and dump valve engaged, see your authorized *Cub Cadet* Dealer.

To decrease brake force, refer to Figure 19 and proceed as follows:

1. While working from the rear of the tractor, turn the nut located on the end of the brake rod, counter-clockwise one full turn at a time, until correct adjustment is achieved.

Recheck the adjustment, making certain correct adjustment is reached before operating the tractor. Following this adjustment, release the brake pedal lock and engage the dump valve. If the tractor still cannot be pushed, see your authorized *Cub Cadet* Dealer.

HYDROSTATIC CONTROLS AND ADJUSTMENT (1330 Tractor)



CAUTION

On the 1330 model tractors, the speed control lever will automatically return to neutral when the brake pedal is pressed all the way down, and the linkage is properly adjusted. If this action fails to occur, contact your authorized *Cub Cadet* Dealer for immediate service.

The following adjustment may be necessary for the hydrostatic adjustment rod if the tractor creeps forward or rearward while the speed control lever is in the neutral ("N") position. Refer to Figure 20 and while working from rear of tractor with unit off, proceed as follows:

1. If the tractor creeps forward, loosen the jam nut and turn the hex on the control assembly counter-clockwise until tractor creep is stopped. When correct adjustment is achieved, retighten jam nut.
2. If the tractor creeps rearward, loosen jam nut and turn the hex on the control assembly clockwise until tractor creep is stopped. When correct adjustment is achieved, retighten jam nut.



NOTE

If condition is not corrected after performing the above steps, see your authorized *Cub Cadet* Dealer for service.

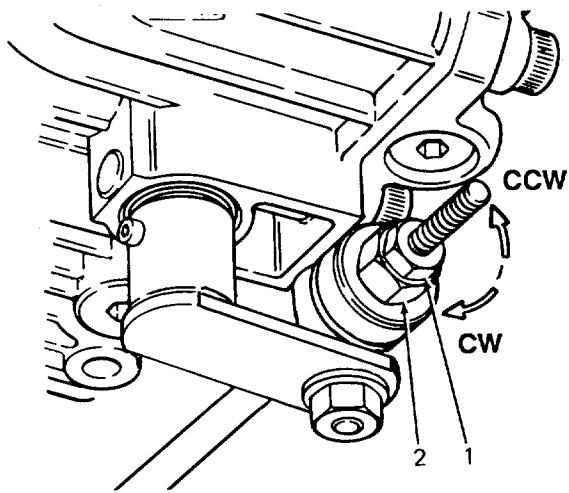


Figure 20

1. Jam Nut
2. Control Assembly

PIVOT BAR ADJUSTMENT BOLTS

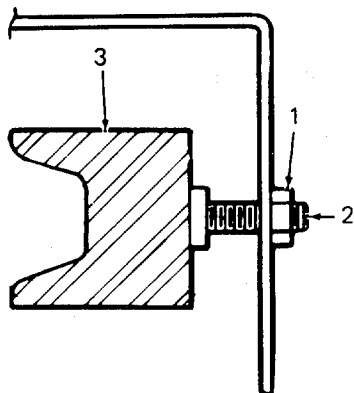


CAUTION

The tractor must be checked every 50 hours of tractor operation for play between the front axle and the pivot bar adjustment bolts. Both adjustment bolt heads must fit against the front axle. If play is discovered, the pivot bar adjustment bolts must be adjusted.

If play is discovered between the front axle and the pivot bar adjustment bolt heads, adjust both bolts as follows: (Refer to Figure 21.)

1. Loosen jam nut 3 to 4 turns or as required.



SECTION A-A

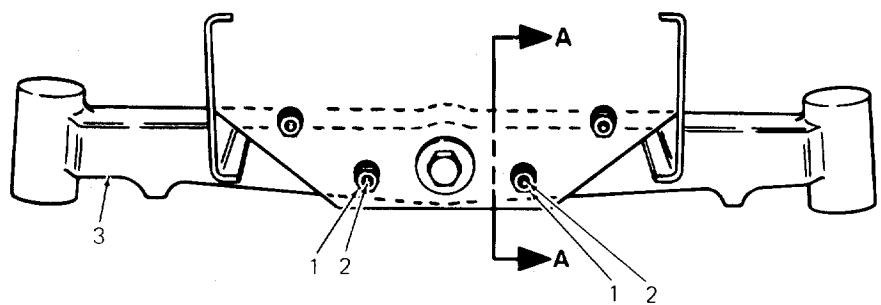


Figure 21

1. Jam Nut
2. Pivot Bar Adjustment Bolts
3. Front Axle

2. Turn pivot bar adjustment bolt counterclockwise until it hits against the front axle.
3. Tighten jam nut.
4. Repeat the above steps for the other pivot bar adjustment bolt.

WHEEL ALIGNMENT

The front wheels should toe-in approximately 1/8 inch. Measure the distances A and B on the front wheels. (Refer to Figure 22.)



NOTE

Dimension B should be approximately 1/8 inch less than dimension A.

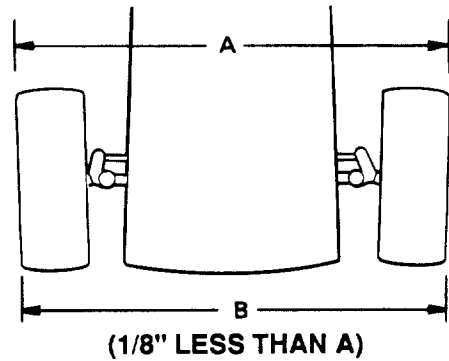


Figure 22

FRONT WHEEL ADJUSTMENTS

To adjust the toe-in remove one ball joint, loosen lock nuts "C" at the ball joint and turn the tie rod ball joint in or out as required. (Refer to Figure 23.)

NOTE

Tie rod has a bend in the center for clearance of castle nut on pivot bar. Bend must remain down as shown in Figure 23.

TURNING RADIUS

CAUTION

Be sure all parts are tightened after completing the following adjustment.

The front wheels should have an equal angle for left and right turns. If adjustment is necessary, remove ball joint and loosen lock nut "D." (Refer to Figure 23.) Turn the drag link ball joint clockwise or counterclockwise as required.

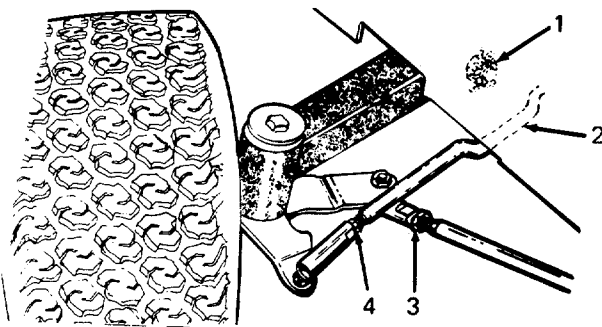


Figure 23
Tie Rod and Drag Link Ball Joints

1. Castle Nut at Pivot Bar
2. Bend in Tie Rod
3. Lock Nut "D"
4. Lock Nut "C"

CARBURETOR ADJUSTMENT

NOTE

Carburetor adjustments should be made only after the engine has warmed up.

This engine is equipped with a fixed main jet carburetor. (Refer to Figure 24.)

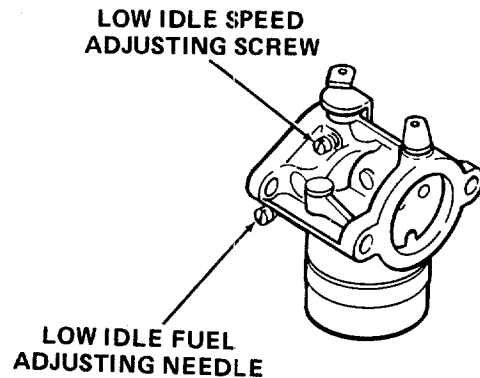


Figure 24. Fixed Main Jet Carburetor

The carburetor is designed to deliver the correct fuel-to-air mixture to the engine under all operating conditions. The main fuel jet is calibrated at the factory and is not adjustable. The low idle fuel adjusting needle is also set at the factory and normally does not need adjustment.

If, however, the engine is hard-starting or runs roughly or stalls at low idle speed, it may be necessary to adjust or service the carburetor.

Turning the low idle adjusting needle in (clockwise) decreases the supply of fuel to the carburetor. This gives a leaner fuel-to-air mixture. Turning the adjusting needle out (counterclockwise) increases the supply of fuel to the carburetor. This gives a richer fuel-to-air mixture. Setting the needle midway between the lean and rich position will usually give the best results.

NOTE

Engines operating at altitudes above approximately 1829 m (6000 ft) may require a special "high altitude" main jet.

To Adjust Carburetor

1. With the engine stopped, turn the low idle fuel adjusting needle in (clockwise) until it bottoms *lightly*.

NOTE

The tip of the low idle fuel adjusting needle is tapered to critical dimensions. Damage to the needle and the seat in carburetor body will result if the needle is forced.

2. **Preliminary Low Idle Fuel Needle Setting:** Turn the adjusting needle out (counterclockwise) from lightly bottomed 1 full turn.

3. Start the engine and run at half throttle for five to ten minutes to warm up. The engine must be warm before making final settings (steps 4, 5, and 6).
4. **Low Idle Speed Setting:** Place the throttle control into the "idle" or "slow" position. Set the low idle speed to 1200 rpm (± 75 rpm) by turning the low idle speed adjusting screw in or out. Check the speed using a tachometer.

5. **Low Idle Fuel Needle Setting:** Place the throttle into the "idle" or "slow" position.

Turn the low idle fuel adjusting needle out (counterclockwise) from the preliminary setting until the engine speed decreases (rich). Note the position of the needle.

Now turn the adjusting needle in (clockwise). The engine speed may increase, then it will decrease as the needle is turned in (lean). Note the position of the needle.

Set the adjusting needle midway between the rich and lean settings. (Refer to Figure 25.)

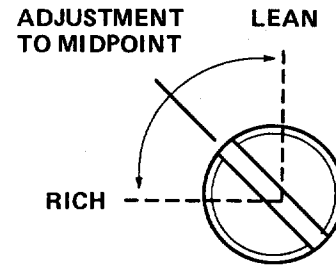


Figure 25. Optimum Low Idle Fuel Setting

➔ NOTE

The actual low idle speed depends on the application—refer to equipment manufacturer's recommendations. The recommended low idle speed for basic engines is 1200 rpm. To ensure best results when setting the low idle fuel needle, the low idle speed must not exceed 1500 rpm.

6. Recheck the idle speed using a tachometer. Readjust the speed as necessary.

SECTION IV. MAINTENANCE

This section contains maintenance information for Models 1325 and 1330 tractors. Maintenance for the 38-inch mower deck is located on page 27 of Section VI, MOWER DECK.

ENGINE OIL

The engine crankcase is filled with ship-away oil. This oil may be used for the first 5 hours of engine operation at temperatures between 0 degrees F and 90 degrees F. If temperatures are not within this range, drain the oil from the oil filter, if installed, and crankcase and replace with new oil as specified in the "LUBRICATION TABLE." The engine oil must be drained and replaced with new oil after 5 hours of engine operation and then after every 100 hours.

To aid starting, the selection of crankcase lubricating oils should be based on the lowest anticipated temperatures until the next drain period.

Cub Cadet Low Ash Engine Oil meeting API Service Classification SF or SG is recommended. For maximum engine life select API SF or SG oils with lowest levels of barium, calcium, or magnesium additives and minimum ash content (approximately 0.5%). Lubricant suppliers will normally furnish this information on their engine oils.

OIL LEVEL CHECK



CAUTION

The oil level should be checked every hour during the first 5 hours of operation.

Before each use, the oil level of the engine crankcase should be checked to see that it is filled to correct level. Close monitoring of the oil level during the first 5 hours of operation of the engine is especially important. Always keep the oil level between the "FULL" and the "LOW" marks on the dipstick.

1. Clean the area around the oil full tube and oil fill cap/dipstick to prevent debris from entering the crankcase.
2. Unthread and remove oil fill cap/dipstick. Wipe oil off dipstick.

3. Insert dipstick into tube until cap rests on top of the tube. DO NOT thread cap into the tube at this time.
4. Remove dipstick and check oil level. Add proper oil if necessary.
5. Reinstall oil fill cap/dipstick by threading cap securely into tube.



CAUTION

Oil fill cap/dipstick MUST BE TIGHTENED SECURELY INTO TUBE AT ALL TIMES WHEN ENGINE IS OPERATING.



NOTE

Check the oil level only while the engine is stopped and tractor is level.



NOTE

The engine oil level should be checked prior to every use.

OIL CHANGE PROCEDURE



NOTE

The engine oil should be changed after the first 5 hours of operation. Then oil should be changed after every 100 hours of operation.

Refer to the **MAINTENANCE CHART** and the **LUBRICATION TABLE** for information regarding the frequency of oil change and the quantity and type of oil needed. While the engine oil is warm, proceed as follows:



WARNING

Oil may be hot. Use care to avoid burns from hot oil.

1. Place the tractor on a level surface, and engage brake pedal lock. Remove the drain plug and collect the old oil in an adequate container. (Refer to Figure 26.)
2. Remove the oil filter by turning it counterclockwise.

3. Apply a light coat of oil to rubber seal on oil filter. Install filter turning it clockwise. Filter should be snug plus 1/2 turn.
4. Replace the drain plug.
5. Refer to "FILLING THE CRANKCASE" and "LUBRICATION GUIDE" and refill the crankcase.

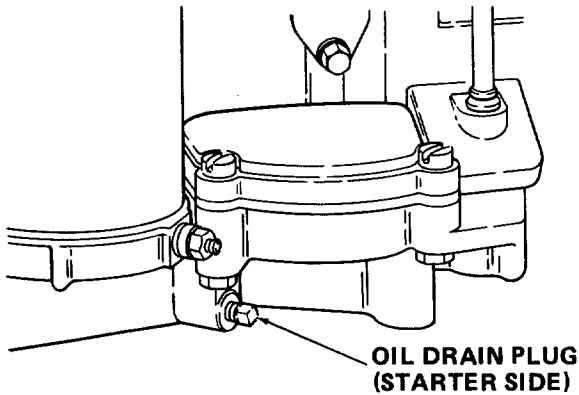
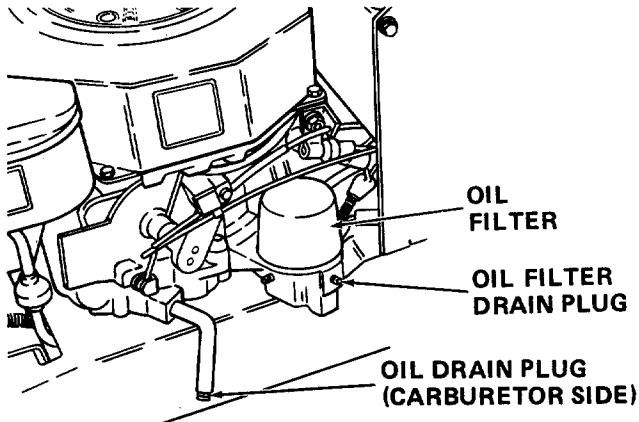


Figure 26. Oil Drain Plugs, Oil Filter, and Oil Filter Drain Plug

FILLING THE CRANKCASE

The oil capacity is 4 pints. To fill the crankcase, proceed as follows.



Never overfill the engine crankcase. Engine may overheat and/or damage may result if the crankcase is below the "LOW" mark or over the "FULL" mark. For oil capacity refer to the **SPECIFICATIONS** and **LUBRICATION TABLE** sections.



For best results, fill only to "F" mark only on dipstick as opposed to adding a given quantity of oil. Always check level on dipstick before adding more oil.

1. Clean the area around the oil full tube and oil fill cap/dipstick to prevent debris from entering the crankcase.
2. Unthread and remove oil fill cap/dipstick. **POUR SLOWLY**, and fill to the full mark on the dipstick.
3. Reinstall oil fill cap/dipstick by threading cap securely into tube.



Oil fill cap/dipstick **MUST BE TIGHTENED SECURELY INTO TUBE AT ALL TIMES WHEN ENGINE IS OPERATING.**

SERVICE PRECLEANER AND AIR CLEANER ELEMENT

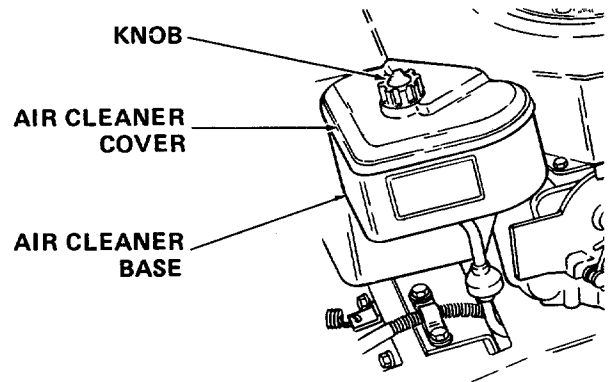


Figure 27. Air Cleaner Housing Components

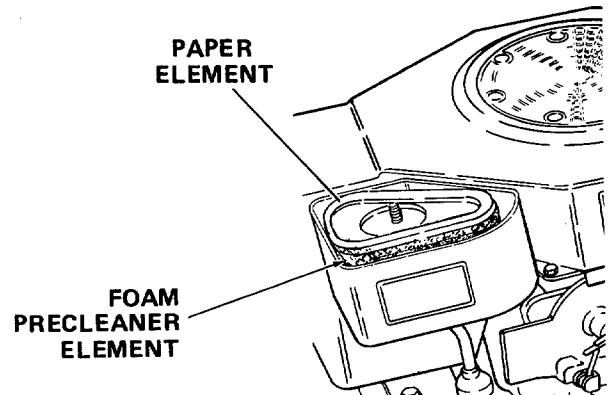


Figure 28. Air Cleaner Elements

Check the air cleaner daily or before starting the engine. Check for and remove any heavy buildup of dirt and debris, and loose or damaged components.

NOTE

Operating the engine with loose or damaged air cleaner components could allow unfiltered air into the engine causing premature wear and failure.

Service Precleaner

Wash and reoil the precleaner every 25 hours of operation (more often under extremely dusty or dirty conditions).

1. Remove the air cleaner cover retaining knob, air cleaner cover, and paper element with pre-cleaner.
2. Remove the precleaner from the paper element.
3. Wash the precleaner in warm water with detergent. Rinse the precleaner thoroughly until all traces of detergent are eliminated. Squeeze out excess water (do not wring). Allow the pre-cleaner to air dry.
4. Saturate the precleaner with new engine oil. Squeeze out all excess oil.
5. Reinstall the precleaner over the paper element.
6. Reinstall the paper element with precleaner, air cleaner cover, and air cleaner cover retaining knob. Make sure the knob is tightened securely.

Service Paper Element

Every 100 hours of operation (more often under extremely dusty or dirty conditions), check the paper element. Clean or replace the element as necessary.

1. Remove the precleaner from the paper element.
2. Gently tap the flat side of the paper element to dislodge dirt. Do not wash the paper element or use pressurized air, as this will damage the element. Replace a dirty, bent, or damaged element. Handle new elements carefully; do not use if the sealing surfaces are bent or damaged.
3. When servicing the air cleaner, check the air cleaner base. Make sure it is secured and not bent or damaged. Also check the air cleaner cover for damage or improper fit. Replace all damaged air cleaner components.
4. Reinstall the paper element, precleaner, air cleaner cover, and air cleaner cover retaining knob. Make sure the knob is tightened securely.

Properly cleaned and installed air cleaner elements significantly contribute to prolonged engine life.

CLEANING ENGINE

This tractor has an air-cooled engine. Air must be able to circulate freely around the engine, through the screen, shroud, and over the fins of the cylinder head and cylinder block. Keep these areas free of accumulated dirt and trash or engine will overheat and result in damaged moving parts.

SPARK PLUGS

WARNING

To avoid possible injury, be sure engine is off and cool before making any adjustment or repairs.

NOTE

Remove all dirt from around the spark plug before removing.

To remove spark plug, always use a spark plug wrench. Check gap after every 100 hours of operation.

Replace a defective plug with a new plug. Set gap at .040 inch. (Refer to Figure 29.) Tighten plug to 28-32 ft-lbs. See your authorized dealer for the correct replacement plug.

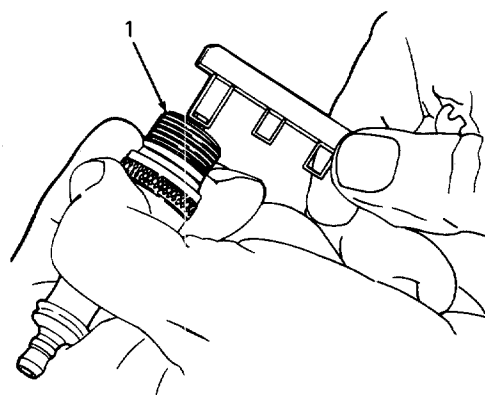


Figure 29

1. Spark Plug

FUEL FILTER



WARNING

Do not change the fuel filter when the engine is hot.

The engine is equipped with an in-line fuel filter. Visually inspect the filter periodically, and replace when dirty.

FIVE SPEED TRANSMISSION (1325 Tractor)

The transmission is lubricated and sealed at the factory and does not require checking. If disassembled for any reason, lubricate with 30 ounces of Bentonite grease, available at your authorized *Cub Cadet* Dealer.

HYDROSTATIC TRANSAXLE (1330 Tractor)

This is a sealed unit. It should only be serviced by an authorized *Cub Cadet* Dealer.

DRIVE BELT REPLACEMENT

If drive belt replacement is required, contact your authorized *Cub Cadet* Dealer.

BATTERY INFORMATION



WARNING

- A. Battery acid must be handled with great care as contact with it can burn and blister the skin. It is also advisable to wear protective clothing (goggles, rubber gloves and apron) when working with it.*
- B. Should battery acid accidentally splatter into the eyes or onto the face, rinse the affected area immediately with clean cold water. If there is any further discomfort, seek prompt medical attention.
- C. If acid spills on clothing, first dilute it with clean water, then neutralize with a solution of ammonia/water or baking soda/water.
- D. Since battery acid is corrosive, do not pour it into any sink or drain. Before discarding empty electrolyte containers, rinse them with a neutralizing solution.
- E. NEVER connect or disconnect charger

clips to battery while charger is turned on as it can cause sparks.

- F. Keep all lighted materials (cigarettes, matches, lighters) away from the battery as the hydrogen gas generated during charging can be combustible.
- G. As a further precaution, only charge the battery in a well-ventilated area.

* Always shield eyes and protect skin and clothing when working near batteries.



DANGER

BATTERIES CONTAIN SULFURIC ACID AND MAY CONTAIN EXPLOSIVE GASES (when electrolyte has been added).

KEEP BATTERIES OUT OF THE REACH OF CHILDREN.

MAINTENANCE OF BATTERY

1. Check electrolyte level periodically (at least every two weeks). Keep the level to the split rings. Use only distilled water or a good quality drinking water. Never add acid or any other chemicals to the battery after initial activation.
2. The battery should be checked with a hydrometer after every 25 hours of operation. If the specific gravity is less than 1.225, the battery should be recharged. Maximum charge rate 5 amps.
3. Coat the terminals and exposed wire with a thin coat of grease or petroleum jelly for longer service and protection against corrosion.
4. The battery should be kept clean. Any deposits of acid should be neutralized with baking soda and water. Be careful not to get this solution in the cells.
5. Avoid tipping the battery. Even a "sealed" battery will leak electrolyte when tipped.

STORAGE OF THE BATTERY

1. When storing battery for extended periods, disconnect battery cables. Removing battery from unit is recommended.
2. Keep the exterior of the battery clean, especially the top. A dirty battery must be stored with a full charge. A dirty battery will discharge itself.

3. Check the battery with a hydrometer. The battery must be stored with a full charge. A discharged battery will freeze.

Specific Gravity	Freezing Point
1.265	-71°F
1.250	-62°F
1.200	-16°F
1.150	5°F
1.100	16°F

 **NOTE**

All batteries discharge during storage.

4. Recharge battery whenever the specific gravity is less than 1.225, before returning to service or every two months, whichever comes first.

COMMON CAUSES FOR BATTERY FAILURE

1. Overcharging
2. Undercharging
3. Lack of water
4. Loose hold downs and/or corroded connections
5. Excessive loads
6. Battery electrolyte substitutes
7. Freezing of electrolyte

 **NOTE**

These failures do not constitute warranty.

BATTERY REMOVAL OR INSTALLATION

 **WARNING**

When removing the battery, follow this order of disassembly to prevent your wrench from shorting against the frame.

1. Remove the Negative cable.
2. Remove the Positive cable.

To install a battery:

1. Attach the Positive cable.

2. Attach the Negative cable.

JUMP STARTING

 **WARNING**

Failure to use this starting procedure could cause sparking, and the gases in either battery could explode.

1. Attach the first jumper cable from the positive terminal of the good battery to the positive terminal of the dead battery.
2. Attach the second jumper cable from the negative terminal of the good battery to the **FRAME OF THE UNIT WITH THE DEAD BATTERY.**

TIRES

Keep the pneumatic tires properly inflated. Overinflation will cause operator discomfort. Underinflation will cause short tire life.

Inflate the front and rear tires for normal or heavy load operations as shown in the following table:

Tire Size	Pounds per Square Inch
Front Tires 15 x 6 x 6	12
Rear Tires 20 x 10 x 8	10

Always see that the tire valve caps are in place and tightened securely to prevent loss of air and protect the valve core and stem.

Do not overload the tractor tires by mounting equipment on the tractor which exceeds the load capacity of the size of the tires on the tractor.

MOUNTING TIRES ON THE RIM

After mounting a new or old tire on the rim, inflate it to 20 pounds pressure to seat the tire bead on the rim flange. Then deflate the tire to the correct operating pressure.

 **NOTE**

After the first 10 hours of operation, check and retorque the front wheel bolts to 35 ft-lbs. and rear wheel bolts to 23 ft-lbs. to make sure they have seated properly.

SECTION V. OFF-SEASON STORAGE

If the machine is to be inoperative for a period longer than 30 days, the following procedures are recommended:



WARNING

Never store engine with fuel in tank indoors or in poorly ventilated enclosures, where fuel fumes may reach an open flame, spark or pilot light as on a furnace, water heater, clothes dryer, etc.

1. Remove all gasoline from fuel tank to prevent gum deposits from forming on these parts and causing possible malfunction of engine.

Run engine until engine starts to falter, then use choke to continue engine operation until all fuel in tank and carburetor is exhausted. Remove fuel line at tank or carburetor and drain any remaining gasoline from system.



WARNING

Drain fuel into approved container outdoors, away from open flame.

Fuel left in engine during warm weather deteriorates and will cause serious starting problems.

2. Remove spark plug and pour one (1) ounce of engine oil through spark plug hole into cylinder. Crank engine several times to distribute oil. Replace spark plug.
3. Clean the engine and the entire tractor thoroughly.
4. Lubricate all lubrication points and wipe the entire machine with an oiled rag in order to protect the surfaces.
5. Follow battery storage instructions on page 24.
6. Protect tires and seat from sunlight. Inflate tires at regular intervals.

SECTION VI. MOWER DECK

This section contains adjustment, removal and installation, and maintenance information for the 38-inch mower deck, Model 441.

A. ADJUSTMENTS

DECK LEVELING ADJUSTMENTS

In order to achieve even cutting, the mower deck must be properly leveled. This leveling procedure will result in the left and right blades having corresponding front cutting-edge-to-ground measurements within 1/16 inch. Also, the right and the left blades will each have a 1/16 to 1/8 inch downward tilt toward the front of the tractor. Proceed as follows:



WARNING

Before making any adjustments, turn off the machine, remove the key, and engage the brake pedal lock to avoid accidental starting and injury.



WARNING

When adjusting the mower deck, be careful not to cut yourself on the sharp blades.



CAUTION

If the mower deck is not level, the mower will not cut your lawn evenly.



NOTE

Check the tires for proper inflation before making a level adjustment. To level the deck, the tractor **MUST** be placed on a hard, level surface.

2. Place the lift handle (Figure 30) in position number 6.
3. Disconnect the spark plug wire(s).

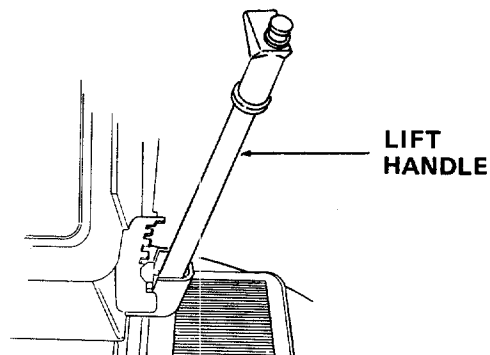


Figure 30

4. Position the mower blades so that the ends of each blade face the front and rear of the tractor. (Refer to Figure 31.)

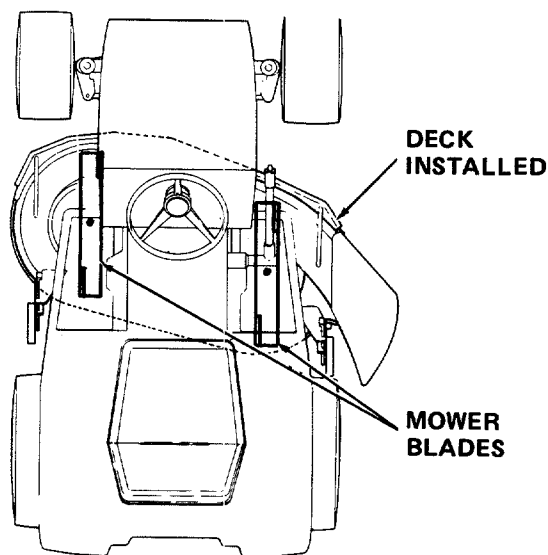


Figure 31

1. The gauge wheels should be set to the lowest position as described in "GAUGE WHEEL ADJUSTMENT" located on page 28.
5. Refer to Figure 32. Measure and record the distance from the hard, level surface to the CUTTING EDGE at the front and rear of each of the

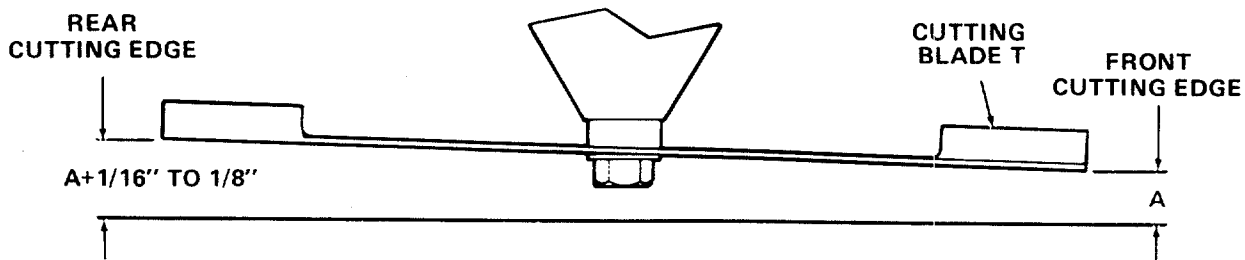


Figure 32

blades. Hereafter, these measurements will be referred to as the cutting-edge-to-ground distances.

6. Determine which blade has the highest front cutting-edge-to-ground distance. Adjustments designed to place the front cutting-edge-to-ground measurements of the two blades within 1/16 inch of one another are performed on the blade which has the highest recorded front cutting-edge-to-ground measurement.
7. Begin by placing the lift handle in position number 1. Refer to Figure 33 and remove the hairpin cotter and flat washer which secure the front lift link to the lift carriage lift pin. Remove the front lift link from the lift carriage lift pin.
8. Turn the lift link counterclockwise (out of the ferrule), until the front cutting-edge-to-ground distance on the high blade is equal to the corresponding blade measurement on the opposite side of the deck. Each 360 degree turn of the lift link equals approximately 1/16 inch.
9. Reposition the front lift link onto the lift carriage lift pin, and secure with a flat washer and hairpin cotter.
10. Place the lift handle in position number 6, and remeasure the front cutting-edge-to-ground distance on the high blade. If it is within 1/16 inch of the corresponding measurement on the opposite blade, proceed to step 11. If the two measurements are not within 1/16 inch, repeat steps 6, 7, 8, 9, and 10 until the desired measurement is achieved.
11. With the lift handle in position number 6, repeat and record the blade measurements described in step 5. Refer to your recorded cutting-edge-to-ground measurements. Each of the two blades must have a downward tilt toward the front of the tractor. A proper tilt is achieved when a blade's rear cutting-edge-to-ground measurement (measurement A+, Figure 32) is 1/16 to 1/8 inch higher than that blade's front cutting-edge-to-ground measurement (measurement A, Figure 32). If a proper tilt does not exist for one or both of the blades, refer to step 12.
12. Place the lift handle in position number 1. Working on side of the deck corresponding to the blade being adjusted, refer to Figure 33 and remove the hairpin cotter and flat washer securing the rear lift link to the lift carriage lift pin. Remove lift link from the lift pin.
13. Rotate the lift link into or out of the ferrule to achieve the 1/16 to 1/8 inch downward tilt of the blade. Each 360 degree rotation of the lift link equals approximately 1/16 inch. Clockwise rotation of the lift link increases the tilt; counterclockwise rotation decreases the tilt.
14. Reposition the rear lift link onto the lift carriage lift pin. Secure with a flat washer and hairpin cotter.
15. Place the lift handle in the highest setting. Remeasure the front and the rear cutting-edge-to-ground distances to confirm that the proper blade tilt, as described in step 11, has been achieved. If the proper tilt has not been achieved, repeat steps 11, 12, 13, 14 and 15.

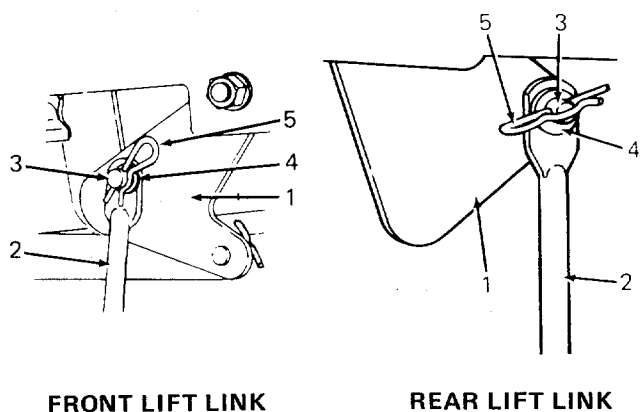


Figure 33

1. Lift Carriage
2. Front Lift Link
3. Lift Pin
4. Flat Washer
5. Hairpin Cotter

1. Lift Carriage
2. Rear Lift Link
3. Lift Pin
4. Flat Washer
5. Hairpin Cotter

GAUGE WHEEL ADJUSTMENT



Gauge wheel adjustment should be done only AFTER the deck has been properly adjusted.



Gauge wheels prevent scalping and are not meant to set the cutting height.

In order to adjust the height of the gauge wheels, proceed as follows:

1. Pull out the quick release pin.
2. With pin pulled out, slide the gauge wheel bracket up or down until desired height is reached.
3. Reinsert the quick release pin.

NOTE

There are half height adjustment holes along with the adjustment holes in the gauge wheel bracket. Both gauge wheels must be set in the same relative hole locations. Refer to Figure 34.

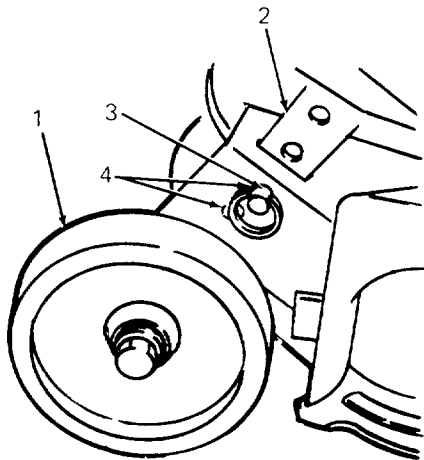


Figure 34

1. Gauge Wheel
2. Gauge Wheel Bracket
3. Quick Release Pin
4. Half Height Adjustment Holes

B. REMOVAL AND INSTALLATION OF DECK ASSEMBLY

REMOVAL OF DECK

WARNING

Stop the tractor engine, place the PTO switch in the "OFF" position, place all controls in neutral and engage the brake pedal lock before performing deck removal.

WARNING

When handling the mower deck, be careful not to cut yourself on the sharp blades.

CAUTION

The mower deck must be placed on a hard level surface during removal.

NOTE

When removing the mower deck from the tractor, save all retaining hardware such as hairpin cotters and flat washers. These items will be used again when deck is reinstalled on the tractor.

1. Lower the lift handle to its lowest setting.
2. Pull idler pulley away from the tractor and then remove PTO belt from behind it. Release idler pulley. (Refer to Figure 35.)

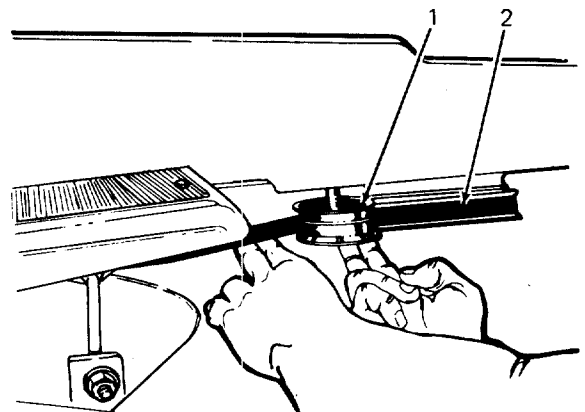


Figure 35

1. Idler Pulley
2. Front PTO Drive Belt

3. Slip drive belt off electric PTO pulley on tractor. (Refer to Figure 36.)
4. Remove front PTO drive belt on upper pulley of double drive pulley on deck.

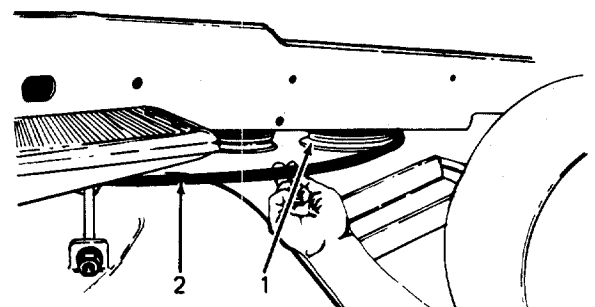


Figure 36

1. Electric PTO Pulley
2. Front PTO Drive Belt



WARNING

The mower deck and front hanger assembly will spring forward slightly when the hanger assembly is removed from the front hanger bracket.

- Turn the front wheels to the left as far as possible. Remove the front hanger bracket assembly from the front hanger bracket as follows: Remove two hairpin cotters on right side of tractor hanger rod and slide rod out to the left. (Refer to Figure 37.)

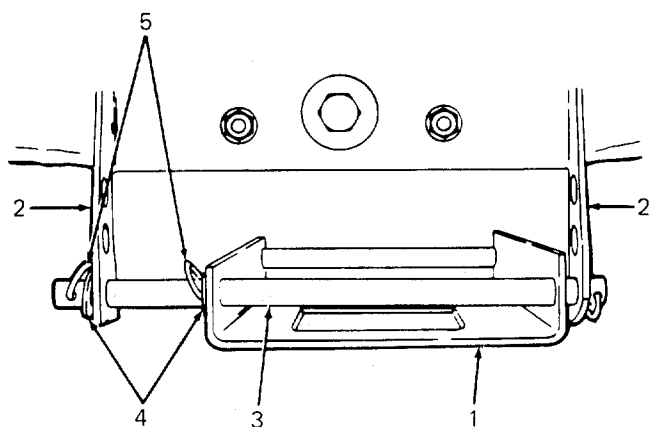


Figure 37

- Front Hanger Assembly
- Front Hanger Bracket
- Tractor Hanger Rod
- Flat Washer
- Hairpin Cotter

- Remove the front hanger bracket from the front roller bracket as follows: Remove hairpin cotter and flat washer, then remove the deck hanger rod. (Refer to Figure 38.)

- Remove the four lift links from the lift carriage lift pins as follows: Lift the deck slightly by hand and remove the hairpin cotter and flat washer which secure each lift link to the lift pins. (Refer to Figures 39 and 40.)

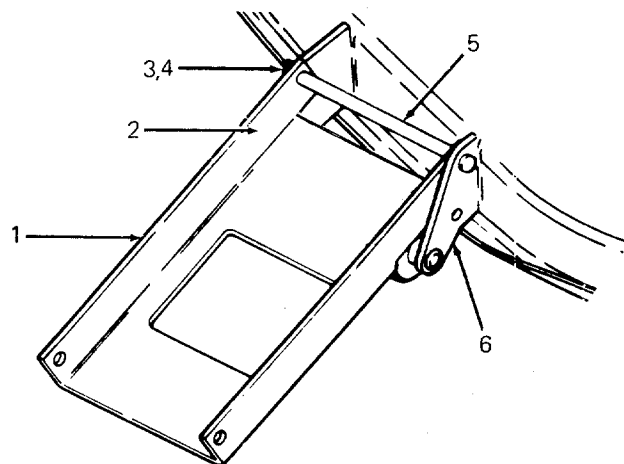


Figure 38

- Front Hanger Assembly
- Hanger Extension
- Hairpin Cotter
- Flat Washer
- Deck Hanger Rod
- Front Roller Bracket

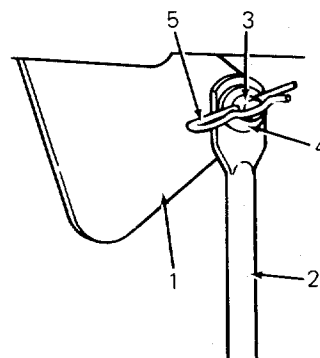


Figure 39

- Lift Carriage
- Rear Lift Link
- Lift Pin
- Flat Washer
- Hairpin Cotter

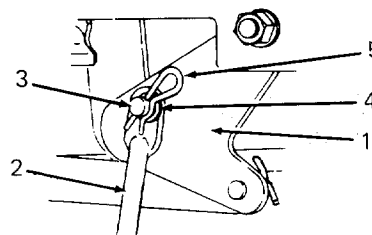


Figure 40

- Lift Carriage
- Front Lift Link
- Lift Pin
- Flat Washer
- Hairpin Cotter

8. Raise the lift handle to the highest setting and slide the deck out from under the tractor. (Refer to Figure 41.)

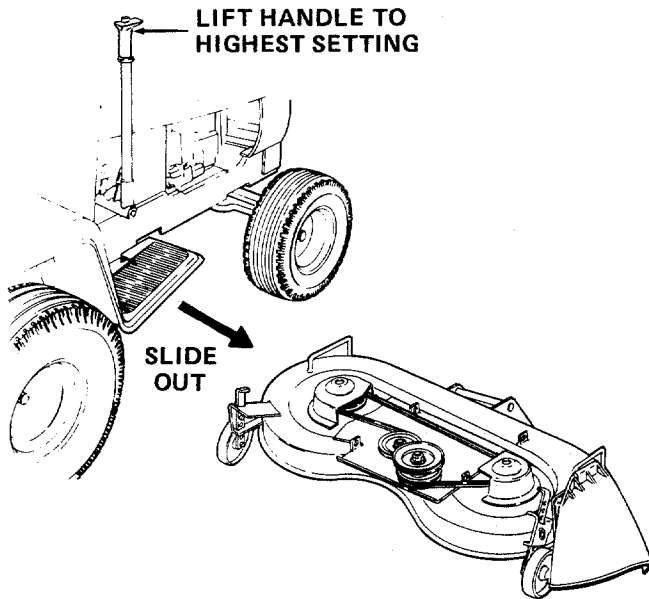


Figure 41

1. Raise the lift handle to its highest setting. Refer to Figure 42 and place the deck on the right side of the tractor, with the front of the deck facing toward the front of the tractor. Slide the deck under the tractor until it is aligned with the tractor as illustrated in Figure 43.
2. Lower the lift handle to position number 1. Refer to Figure 44 and secure each of the rear lift links to the lift carriage lift pins using a flat washer and hairpin cotter.

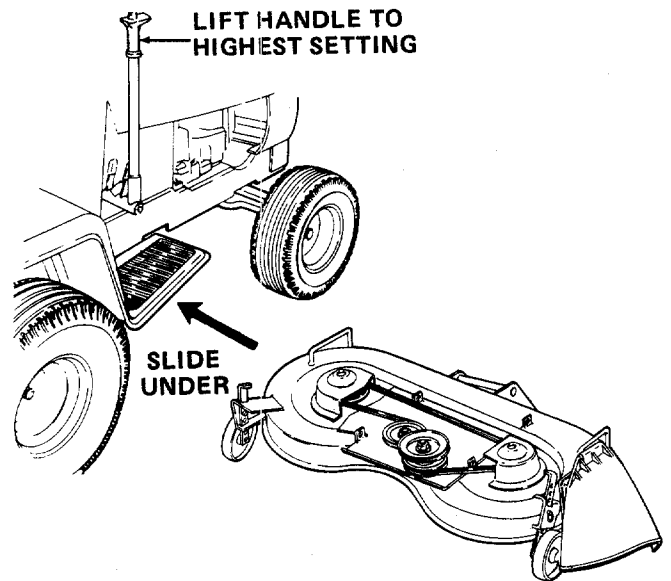


Figure 42

INSTALLATION OF DECK



WARNING

Stop the tractor engine, place the PTO switch in the "OFF" position, place all controls in neutral and engage the brake pedal lock before performing deck installation.



WARNING

When handling the mower deck, be careful not to cut yourself on the sharp blades.



WARNING

The mower deck must be placed on a hard level surface during installation.



NOTE

When installing the mower deck, use hairpin cotters and flat washers retained when deck was removed from tractor.

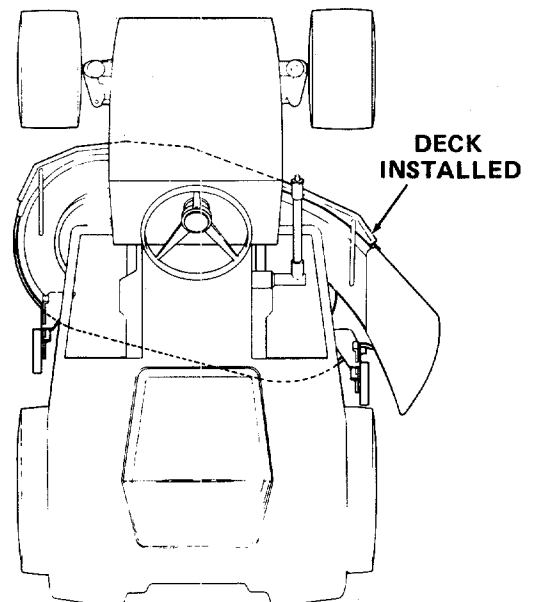


Figure 43

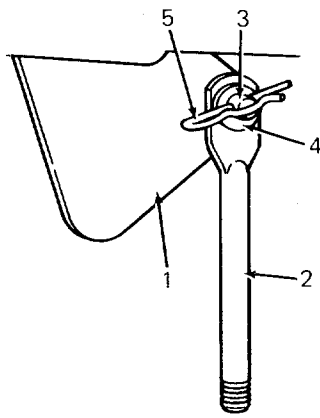


Figure 44

1. Lift Carriage
2. Rear Lift Link
3. Lift Pin
4. Flat Washer
5. Hairpin Cotter

3. Secure each of the front lift links to the lift carriage lift pins using a flat washer and hairpin cotter. (Refer to Figure 45.)
4. Refer to Figure 46 to determine the proper positioning of the front hanger assembly in relation to the tractor and deck. Note that when the front hanger assembly is properly positioned, the hanger extensions face the rear of the tractor, and the top of the front hanger assembly is open. Attach the rear of the front hanger assembly to the top hole of the front roller bracket using the deck hanger rod. Secure the rod to the bracket using a flat washer and hairpin cotter.

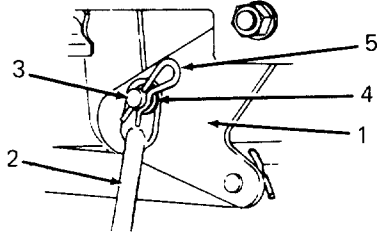


Figure 45

1. Lift Carriage
2. Front Lift Link
3. Lift Pin
4. Flat Washer
5. Hairpin Cotter

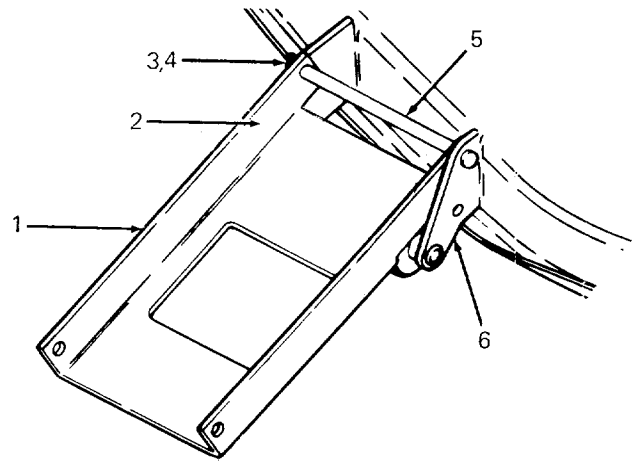


Figure 46

1. Front Hanger Assembly
2. Hanger Extension
3. Hairpin Cotter
4. Flat Washer
5. Deck Hanger Rod
6. Front Roller Bracket

5. With the left front wheel turned to the left, attach the front hanger assembly to the front hanger bracket by passing the tractor hanger rod through the bottom mounting holes of the front hanger bracket. Remember to attach the center flat washer to the rod after it passes through the right side of the front hanger assembly. Refer to Figure 47. Secure the tractor hanger rod with flat washer and hairpin cotters.

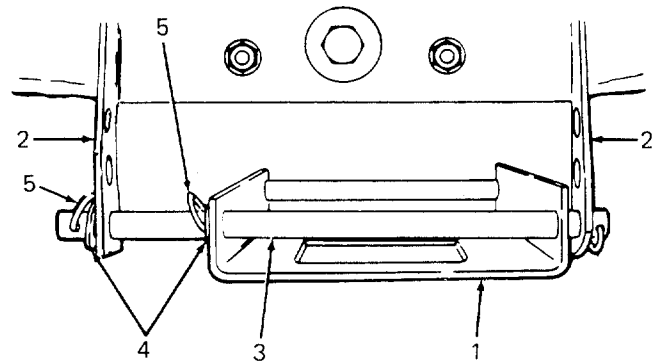


Figure 47

1. Front Hanger Assembly
2. Front Hanger Bracket
3. Tractor Hanger Rod
4. Flat Washer
5. Hairpin Cotter

6. Install front PTO drive belt on upper pulley of double drive pulley on deck.

- Slip drive belt over electric PTO pulley on tractor. Refer to Figure 48.

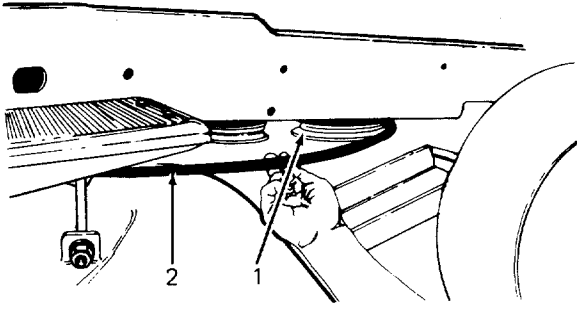


Figure 48

- Electric PTO Pulley
- Front PTO Drive Belt

- Pull idler pulley away from the tractor and then place drive belt behind it. Release idler pulley. (Refer to Figure 49.)

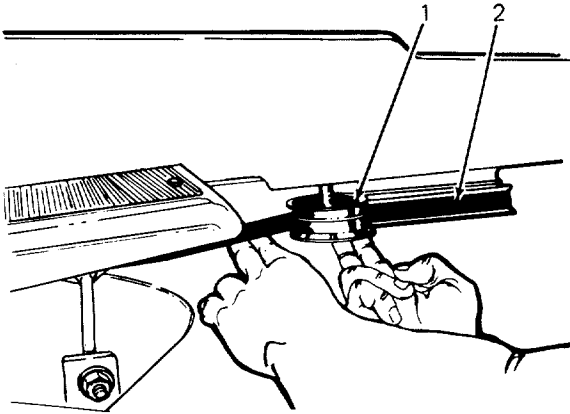


Figure 49

- Idler Pulley
- Front PTO Drive Belt



CAUTION

Following mower deck installation, and **BEFORE** operating the deck, refer to "ADJUSTMENTS" located on page 27.

C. MAINTENANCE

CLEANING AND BLADE CARE



WARNING

Stop the tractor, disengage the PTO, place all controls in neutral, engage the brake lock and stop the engine before performing any maintenance.



WARNING

Be careful not to cut yourself when sharpening the blades or cleaning the underside of the mower.

Clean the underside of the mower deck at the end of the mowing season and when buildup of cut material on the underside is noticed. Also remove the belt cover and remove any accumulation.

The cutting blades must be kept sharp at all times.



NOTE

Sharpen ends evenly so that the blades remain balanced and the same angle of sharpness is maintained. However, if the cutting edge of a blade has been sharpened to within 3/8 inch of the wind wing, it is recommended that new blades be installed. New blades are available at your authorized dealer.

When removing the blades, hold the hex shaped pulley hub with a 1-1/4 inch socket wrench to remove the hex nut holding the blade. A block of wood may be placed between housing and cutting edge of blade to assist in removal of hex nut securing blade. Refer to Figure 50.

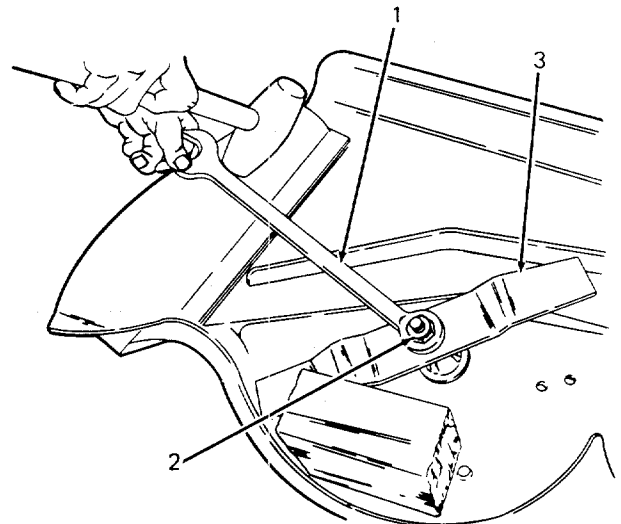


Figure 50

- 1-1/8 Inch Wrench
- Hex Nut
- Blade

After replacing blades, grease the threaded end of the shaft to prevent rust buildup.

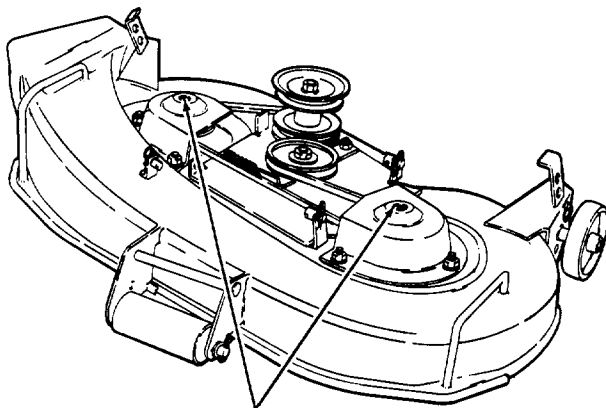
When replacing the blades, be sure they are assembled so the cutting edges are in the direction of rotation with the wind wings pointed upward. Tighten the nuts to 90 to 110 ft-lbs. (122 to 149 N·m).

NOTE

If the spindle pulley nuts are removed for any reason, they should be retightened to 50 to 60 ft-lbs. (68 to 81 N·m) torque when replaced.

LUBRICATION

After every 50 hours of operation and/or before putting into winter storage, lubricate the spindle assemblies using 251H EP grease or equivalent No. 2 multipurpose lithium grease. The grease will be expelled from the top spindle seal. Since the spindle pulley covers the top spindle seal, the expelled grease cannot be seen. When the spindle is fully greased, the expelled grease will cause the top spindle seal to give off a muffled crackling noise. Refer to Figure 51.



SPINDLE ASSEMBLY
GREASE FITTINGS

Figure 51

SPINDLE DRIVE BELT REPLACEMENT

In order to replace the spindle drive belt, refer to Figures 52, 53 and 54 and proceed as follows:

1. Remove the nuts and washers that secure the spindle belt covers to the deck.
2. Remove the spindle belt covers to expose the belt.
3. Push against the idler pulley to release tension on drive belt.
4. Remove old drive belt.
5. Install a new belt. Refer to Figures 52, 53 and 54 for proper placement of belt. Push against idler pulley to aid the installation.

6. Reinstall spindle belt covers and hardware.

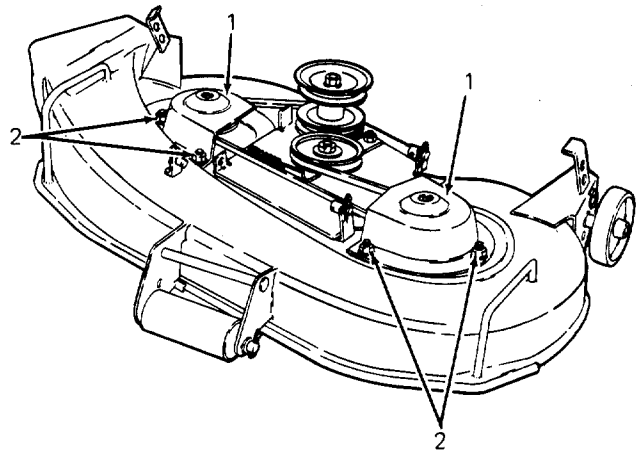


Figure 52

1. Spindle Belt Cover 2. Nuts and Washers

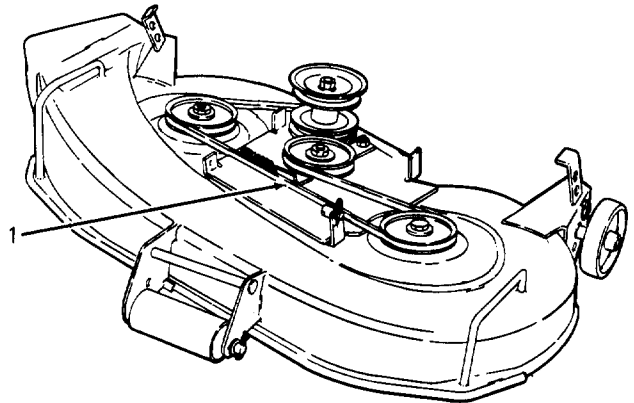


Figure 53

1. Spindle Drive Belt

PUSH AGAINST
IDLER PULLEY

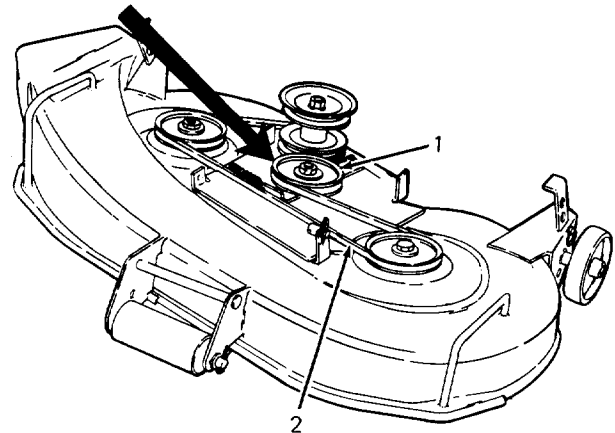


Figure 54

1. Idler Pulley 2. Spindle Drive Belt

SECTION VII. MOWING

STARTING THE MOWER



In heavy grass, full throttle may be needed when starting the mowing deck.

With the engine running at idle speed, start the power take-off clutch (see page 14, Figure 13). Starting the mower with the engine in idle will reduce wear on the drive belt. Increase engine speed to full throttle.

STOPPING THE MOWER

Move the power take-off (PTO) switch to the "OFF" position and reduce engine speed.

CUTTING HEIGHT

The mower can be set in multiple positions. Proceed as follows:

1. Pull the lift handle back slightly and depress the button on the top of the lift handle.
2. Release the button when the desired mower position is obtained.



To return the mower to a specific position, note position of the lift lever indicator in relation to the lever position decal before raising or lowering the mower.

MOWING



To avoid possible injury, do not allow anyone in the area opposite the discharge chute while mowing. Although the area has been supposedly cleared of foreign objects, small objects may be discharged by the mower.



Never direct discharge of material toward bystanders or allow anyone near the machine while in operation.

For best results it is recommended that the first two laps should be cut with the discharge thrown towards the center. After the first two laps, reverse the

direction to throw the discharge to the outside for the balance of cutting. This will give a better appearance to the lawn.

Do not cut the grass too short, as the mower will tend to scalp the grass. Short grass invites weed growth and yellows quickly in dry weather.

Mowing should be done with the engine at full throttle. Do not mow at high ground speed.

During certain times of the year and under some conditions, the mower may leave streaks of uncut material.

Streaking may occur when attempting to mow heavy weeds and tall grass. Under these conditions it may be necessary to go back over the cut area a second time to get a clean cut.

The following practices will help eliminate streaking:

1. Mow the area more often so the grass doesn't get too tall and heavy.
2. Operate the tractor at full throttle and lower forward speeds.
3. Keep the blades sharp and replace blades when worn.
4. Follow the mowing procedure shown in Figure 55.

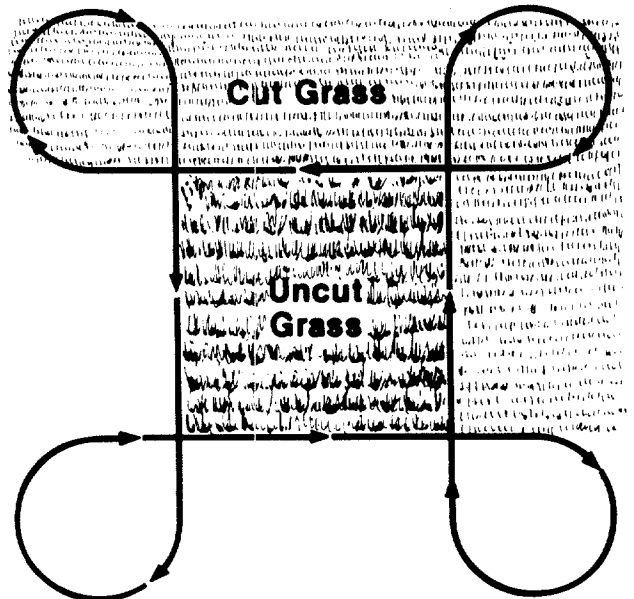


Figure 55

OPTIONAL EQUIPMENT AND ACCESSORIES

When you purchased your tractor, you probably had it completely equipped for your particular needs at the time. However, later you may wish to obtain optional equipment or accessories. These items and other allied equipment can be purchased from, and installed by, your authorized dealer.

The tractor is used for so many different types of work, and because it is called on to operate under so many different conditions, a variety of equipment is available to adapt it to the requirements of the user. **Refer to attachment guide for a complete description of equipment and required components that can be utilized with your tractor.**

MAINTENANCE CHART

Operation to be performed	Before each use	10 hours or once a month	50 hours	100 hours or yearly	Before storage
Clean grille (front & backside) & engine inlet air screen		More often under dirty conditions X			
Check engine oil level	X				
Fill fuel tank	X				
Change engine oil and filter	After first 5 hours			X	
Check battery electrolyte level		X			
Grease front axle pivot bolt		X			
Lubricate steering knuckles (2) and steering arm		X			
Retorque rear and front wheel bolts		After first 10 hours X		X	
Lubricate brake shaft			X		
Clean cooling fins & external surfaces			X		
Service air cleaner				More often under dirty conditions	
Check spark plugs				X	X
Lubricate speed control linkage cam plates (1320 Tractor)				X	
Grease front wheel bearings			X		X
Drain fuel					X
Pivot bar adjustment bolt			X		
Movable idler bracket			X		
Steering gear			X		
Deck spindles			X		

 **NOTE**

Maintenance information for optional equipment may be found in the manual which is included with the specific piece of optional equipment.

TROUBLE SHOOTING

Possible Cause

Possible Remedy

HARD TO START

No gasoline in fuel tank or carburetor	Fill the tank with gasoline. Check the fuel line and carburetor.
Fuel line or carburetor clogged	Clean the fuel line and carburetor with commercial carburetor cleaner.
Water in gasoline	Drain the fuel tank and carburetor. Use new fuel and dry the spark plug.
Choked improperly. Flooded engine	Follow the starting instructions.
Defective ignition or loose wiring	Check the wiring, spark plug, or fuse.
Defective battery	Check and service. Refer to "BATTERY."
Spark plug dirty or improper gap	Clean, adjust the gap to .040-inch or replace the plug.

ENGINE OPERATES IRREGULARLY OR KNOCKS

Engine incorrectly timed	*
Spark plug dirty; wrong gap or wrong type	Clean, reset the gap, or replace.
Poor or weak spark	Check the spark plug and wiring.*
Carburetor setting incorrect	Adjust. Refer to "ADJUSTMENTS" *
Poor grade fuel or water in fuel	Drain and use a good grade of clean fuel.
Engine overheating	Refer to "MAINTENANCE."
Engine valves at fault	*
Engine smokes	Adjust the carburetor.*
Oil level will rise due to gasoline in crankcase	Refer to "OPERATING IN COLD WEATHER."
Air filter will become oil and fuel soaked	Refer to "OPERATING IN COLD WEATHER."
Engine leaks oil	Refer to "OPERATING IN COLD WEATHER."
Misfiring	Refer to "OPERATING IN COLD WEATHER."
Other engine problems	*
Excessive oil in air cleaner	Be sure that oil dipstick is fully seated and all excess oil is squeezed out of pre-cleaner foam element.

LACK OF POWER

Air cleaner clogged	Service the air cleaner element. Refer to "MAINTENANCE."
Engine overload	Reduce the load.
Engine overheated	Make sure air intake screen, shrouding, engine fins, and grille are free of accumulated dirt and trash. Refer to "MAINTENANCE."
Poor fuel, too rich, or too lean a mixture	Refer to "ADJUSTMENTS."
Fuel tank air vent clogged	Open the vent in the cap.
Air leakage between carburetor and engine	Remove air cleaner. Tighten the carburetor and manifold mounting nuts. Replace as indicated in "MAINTENANCE."

*See your authorized dealer.

TROUBLE SHOOTING

Possible Cause

Possible Remedy

LACK OF POWER (Cont)

Incorrect timing or faulty ignition	*
Brake drags	Adjust the brake. Refer to " ADJUSTMENTS. "
Belt slipping (1325 Tractor Only)	Adjust the free travel of the pedal. Refer to " ADJUSTMENTS. "*

ENGINE OVERHEATING

Insufficient cool air, dirty air intake screen, shroud, cooling fins, or dirty grille	Keep the air intake area and cooling fins clean; refer to " MAINTENANCE. "
Lean carburetor adjustment	Readjust. Refer to " ADJUSTMENTS. "
Oil level incorrect	Engine oil level must not be over the "FULL" mark or below the "LOW" mark. Refer to " MAINTENANCE. "

*See your authorized dealer.

LUBRICATION TABLE

Point of Lubrication	Check at Hours	Change at Hours	Capacity	Anticipated Air Temperature	
				Above +32°F	Below +32°F
Engine crankcase	Check before each use	5 hrs then every 100 hours	4 pints	<i>Cub Cadet</i> Low Ash Engine Oil SAE 10W30 or 10W40	<i>Cub Cadet</i> Low Ash Engine Oil SAE 5W20 or 5W30
Steering knuckles & front axle pivot bolt	10		Use 251H EP grease or equivalent No.2 multi-purpose lithium grease and apply two or three strokes or sufficient grease to flush out old grease and dirt.		
Front wheel bearings	50				
Steering gear	50		Turn the steering wheel fully to the right and brush on 251H EP grease or equivalent No. 2 multi-purpose lithium grease to the steering gear. Turn the steering wheel in both directions to disperse the grease.		
Deck spindles	50		Use 251H EP grease or equivalent No. 2 multi-purpose lithium grease and apply sufficient grease to flush out old grease and dirt.		

LUBRICATION GUIDE

The life of any machine depends upon the care it is given. Proper lubrication is a very important part of that care.

Be certain that all lubrication fittings are assembled in place, using the lubrication illustrations as a guide.

Always lubricate the deck thoroughly before taking it to the field. Use a pressure lubricating gun.

Be sure all fittings are free from dirt and paint so the lubricant is certain to enter the bearing.

Miscellaneous working parts not provided with lubrication fittings should be oiled daily with a good grade of lubricating oil.

Lubricant is cheap. Use plenty of it. Worn parts can be expensive to replace.

Keep your supply of lubricating oil and grease stored in clean containers, and covered to protect from dust and dirt.

Keep the lubricating gun nozzle clean and wipe dirt from grease fittings before lubricating.

The symbol in the illustration indicates the method of application and the hourly intervals to apply the lubricant.



Use a pressure lubricating gun and apply 251H EP grease (or equivalent No. 2 multi-purpose lithium grease). Lubricate at hourly intervals indicated on symbols.

LUBRICATION GUIDE

—BEFORE EACH USE

1. Engine filler cap and dipstick

Check the oil (with the engine stopped) and add sufficient new oil to bring it to the "FULL" mark on the dipstick. Do not overfill. Do not operate the engine if the oil level is below the "LOW" mark on the dipstick.

—AFTER FIRST 5 HOURS OF OPERATION

2. Engine oil and filter change

While the engine oil is warm, remove the drain plug and drain all of the oil from the crankcase. Replace the oil filter. Replace the drain plug. Refer to "MAINTENANCE," "FILLING THE CRANKCASE" for proper oil filling procedure. Refer to "LUBRICATION TABLE" for the proper quantity and viscosity to use.

—AFTER EVERY 10 HOURS OF OPERATION

3. Steering knuckles (2)
(Both sides)
4. Front axle pivot bolt
(Right side)

Use 251H EP grease or equivalent No. 2 multi-purpose lithium grease and apply sufficient grease to flush out old grease and dirt.

Use 251H EP grease or equivalent No. 2 multi-purpose lithium grease and apply sufficient grease to flush out old grease and dirt.

NOTE: It may be necessary to rotate the front axle to reach the grease fitting.

—AFTER EVERY 50 HOURS OF OPERATION

5. Steering gear

Turn the steering wheel fully to the right and brush on 251H EP grease or equivalent No. 2 multi-purpose lithium grease to the steering gear. Turn the steering wheel in both directions to disperse the grease.

6. Front wheel bearings

Use 251H EP grease or equivalent No. 2 multi-purpose lithium grease and apply two or three strokes or sufficient grease to flush out old grease and dirt.

7. Movable idler bracket

Use 251H EP grease or equivalent No. 2 multi-purpose lithium grease and apply sufficient grease to flush out old grease and dirt.

8. Deck spindles

Use 251H EP grease or equivalent No. 2 multi-purpose lithium grease and apply sufficient grease to flush out old grease and dirt.

—EVERY 100 HOURS OF OPERATION

Speed Control Linkage

9. Cam plates
(1330 Tractor)

Once a year, apply a small amount of 251H EP grease or equivalent No. 2 multi-purpose lithium grease in the slots.

10. Engine oil and filter change

While the engine oil is warm, remove the drain plug and drain all of the oil from the crankcase. Replace the oil filter. Replace the drain plug. Refer to "MAINTENANCE," "FILLING THE CRANKCASE" for proper oil filling procedure. Refer to "LUBRICATION TABLE" for the proper quantity and viscosity to use.

Miscellaneous

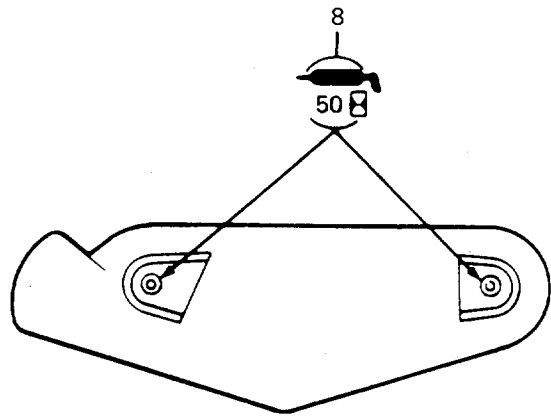
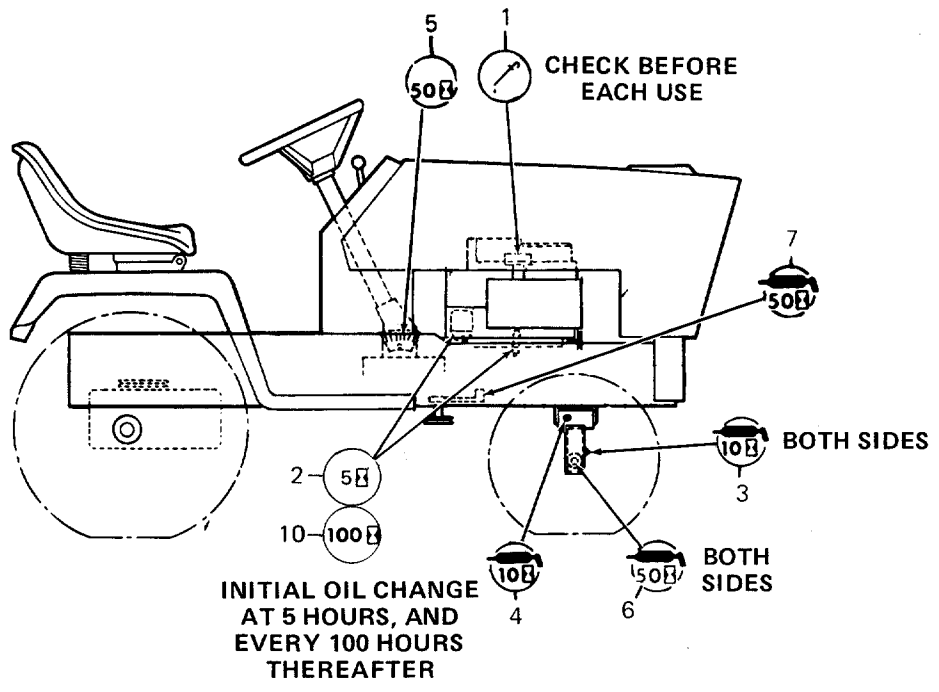
- Brake pedal shaft

Lubricate the brake pedal shaft and linkage with eight or ten drops of engine oil.

NOTE

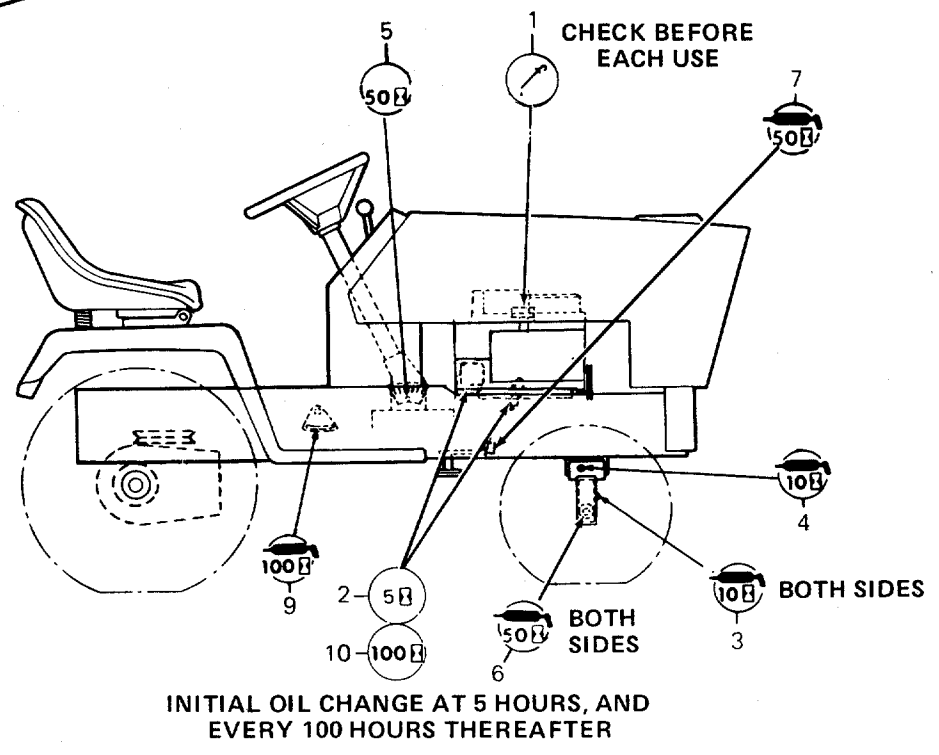
Lubrication information for optional equipment may be found in the manual which is included with the specific piece of optional equipment.

**LUBRICATION GUIDE
MODEL 1325**



(38 INCH DECK)

**LUBRICATION GUIDE
MODEL 1330**



SPECIFICATIONS

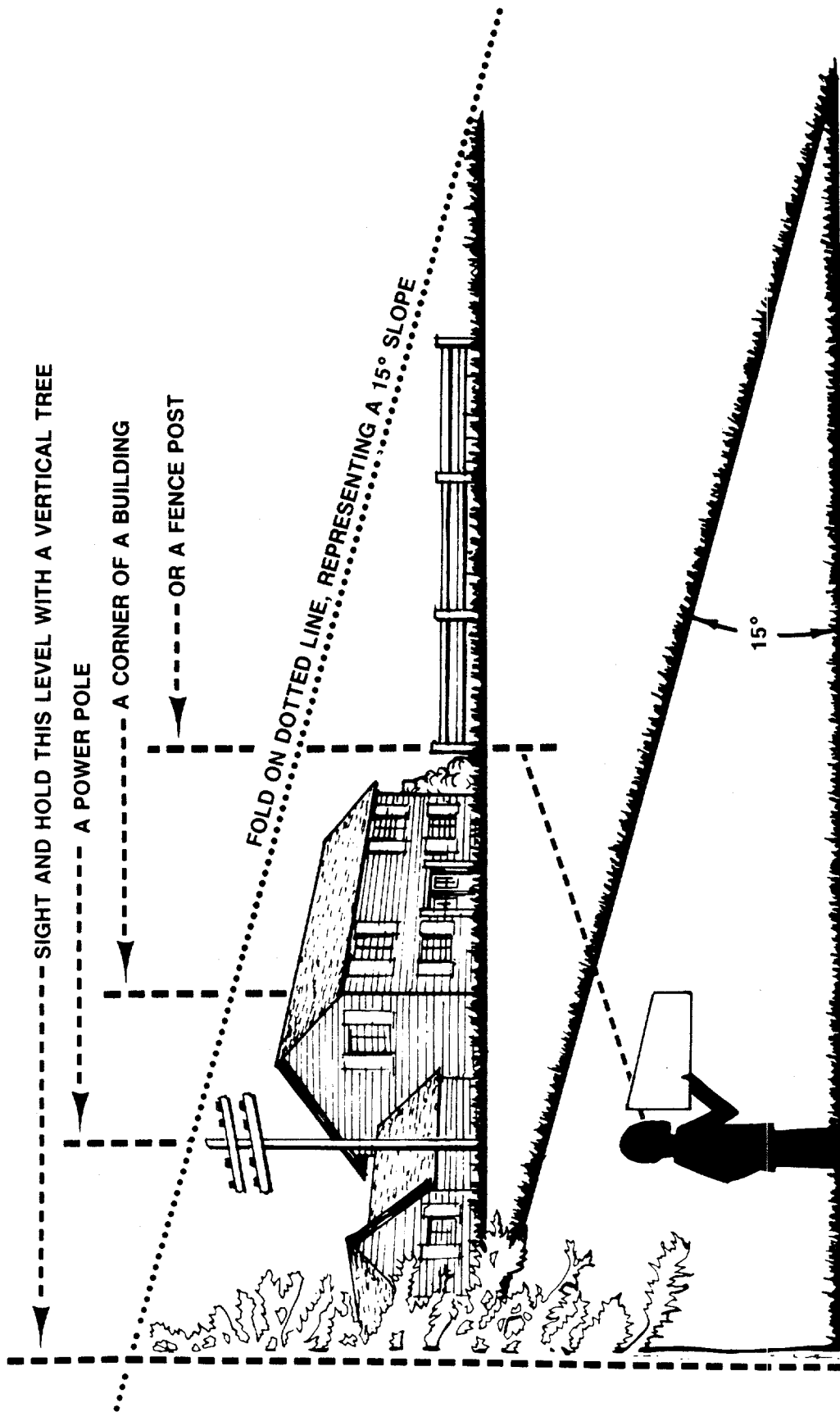
	1325	1330
CAPACITIES		
Fuel Tank		3 gals.
Crankcase		4 pints
TRANSMISSION GEARS		
Speed: Forward		5 forward speeds and 1 reverse
Reverse		0 to 5.5 mph
		0 to 2.35 mph
HYDROSTATIC DRIVE		
Speed: Forward		0 to 5.5 mph
Reverse		0 to 3.0 mph
ENGINE		
Make and model		Kohler
(electric starting)		12.5 HP
Cylinders		1
Bore		3.43 in.
Stroke		2.64 in.
Displacement (cubic inches)		24.29
Engine speed		(governed)
Low speed		1800 RPM
High idle speed (no load)		3300 RPM ±75
Ignition		Battery
Spark plug		759-3336
Spark plug gap040 in. gap
ELECTRICAL SYSTEM		
System voltage		12 volt neg. ground
Battery		<i>Cub Cadet No. 725-3061</i>
Alternator		15 AMP regulated
Fuse (auto type)		20 amp
Headlights (bulb)		GE 12 volt 1141
BRAKES		Single disc, external
CLUTCH		V-belt
TIRE SIZES		
Front		15 x 6 x 6
Rear		20 x 10 x 8
GENERAL		
Wheelbase		45.0 in.
Length, over-all		68.50 in.
Turning radius		29.00 in.
Mower size		38 inches
Adjustable cutting height (approx)		1-1/2 to 4 inches
Mower drive		V-belt with electric clutch

Specifications are subject to change without notice.

USE THIS SHEET AS A GUIDE TO DETERMINE SLOPES WHERE YOU MAY NOT OPERATE SAFELY.

SLOPE GAUGE

(Keep this sheet in a safe place for future reference.)

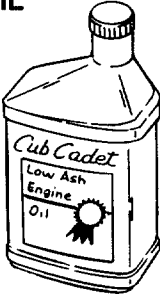
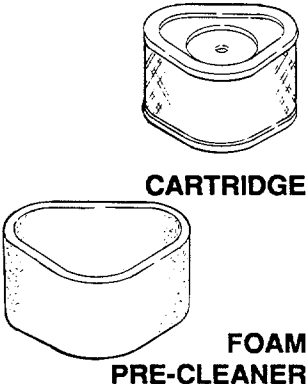
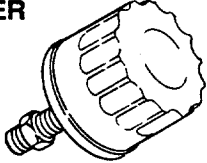





Do not mow on inclines with a slope in excess of 15 degrees (a rise of approximately 2½ feet every 10 feet). A riding mower could overturn and cause serious injury. If operating a walk-behind mower on such a slope, it is extremely difficult to maintain your footing and you could slip, resulting in serious injury.

Operate RIDING mowers up and down slopes, never across the face of slopes.

Operate WALK-BEHIND mowers across the face of slopes, never up and down slopes.

MAINTENANCE PARTS CHART

MODELS 1325 AND 1330				LAWN TRACTOR 12.5 HP KOHLER			
ENGINE OIL 		Engine Oil Requirements 4 pints			Part No.		
		Cub Cadet low ash engine oil Ambient temperature viscosity (Grade SF or SG)					
		Above +32°F	10W30 or 10W40		737-3030 (10W40)		
		Below +32°F	SAE 5W20 or 5W30		737-3049 (5W30)		
AIR FILTER 		Air Filter Requirements			Part No.		
		Clean air filter per instructions in your owner's manual under maintenance air cleaner.			Cartridge KH-12 083 05 Foam Pre-cleaner KH-12 083 08		
OIL FILTER 		Oil Filter Requirements			Part No.		
		Change every 100 hours			KH-12 050 01		
SPARK PLUG 		Gap Requirements			Part No.		
		.040 inch gap			759-3336		
BELTS 		Transaxle Belt		Deck Blade Belt		Tractor to Deck Belt	
		Model	Part No.	Model	Part No.	Model	Part No.
		1325	754-3024	1325	754-3036	1325	754-3029
		1330	754-3037	1330	754-3036	1330	754-3029
BLADES 							
Original Equipment Blade		Bagging Blade		Hard Coated Bagging Blade			
Size	Part No.	Size	Part No.	Size	Part No.		
38"	742-3009 (2)*	38"	742-3008 (2)	38"	759-3396 (2)		

*Original Equipment Blade – Hard Coated 759-3395 (2)